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THE NULLITY OF PSYCHOANALYSIS AS A SCIENTIFIC CONCEPT*

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FROM its incipiency Science, which is an ever-growing organized mass of facts, has retained one unscientific characteristic: In each phase of its progress it has stopped short with superficial solutions—has unscientifically neglected to ask what was the nature of the agents it so familiarly invoked. Although in each succeeding phase it has gone a little deeper and merged its supposed agents in more general and abstract ones, it has still, as before, rested content with these as if they were ascertained realities. In what follows the attempt will be made to show that Freud's psychoanalytic concept is the direct product of this unscientific method of procedure—hence, can never be regarded as existing outside the realm of pure fantasy.

The literature of psychoanalysis is of appalling magnitude. I cannot estimate the numeric strength of the following which this so-called educational and therapeutic procedure has attracted, but its literary activity is stupendous. Brilliant interpretations of Freud's interpretations are on every hand; notwithstanding this fact, I have, in the preparation of my paper, quite arbitrarily confined myself to original sources.

In G. Stanley Hall's authorized translation of Freud's "A General Introduction To Psychoanalysis"** (p. 388 et seq.), Freud tells us that in 1889 he was a pupil of Bernheim at Nancy, and that he subsequently followed his teacher's hypnotic method of therapy for a number of years. He finally tired of the method because, as he says: "In the long run it becomes monotonous for the physician, since each case is exactly the same; continually forbidding the existence of the most diverse symptoms under the same ceremonial, without being able to grasp anything of their meaning or their significance. It is second rate work, not scientific activity, and reminiscent of magic, conjuring and hocus-pocus." Freud admits that he got cures at times, but there was no guarantee of permanency about them, and the tedious forbidding ceremonial had to be all gone over again.

During this period of his growing discontent Freud made a very shrewd observation on certain conditions which appeared to determine the success or failure of the "forbidding ceremonial." He noted that an "aggravated condition" which he had succeeded in clearing up completely by a short hypnotic treatment, returned when the patient became angry and arbitrarily developed ill-feeling against him. After a reconciliation he was able to remove the malady anew and with even greater thoroughness, yet when *she* became hostile to him a second time, it returned again. Another time a patient whom he had repeatedly helped through "nervous conditions" by hypnosis, during the treatment of a specially stubborn attack suddenly threw her arms round his neck. This made it necessary, "whether one wanted to or not," to consider the question of the nature and source of the suggestive authority. Naturally, when a physician, in the legitimate pursuit of a therapeutic procedure, finds that his success is absolutely proportionate to the degree of friendliness existing between the patient and himself; and when he further finds that his success with a particularly stubborn neurosis brings the patient's arms about his neck, it is in the highest degree logical for him to conclude that the symptoms of a neurosis are nothing but a cloak to hide things of vastly deeper import.

To the train of reflection thus started in Freud's mind I think we may trace psychoanalysis. The approach to this goal fairly bristled with obstacles, in the form of ascertained facts, which would have been disheartening to the majority of orthodox psychologists. These Freud eliminated by the simple process of side-stepping. Physiologic psychology teaches that the recognition of a sensation as such or such necessitates the bringing of it into relation with the continuous series of sentient states, from some of which, simultaneously experienced, it is dissociated by perceived unlikeness, and from others of which, previously experienced, it is associated by perceived likeness; and the implied comparisons of sentient states are impossible unless the correlative nervous changes are put in connection at one place. From this we must not conclude, however, that the connecting place is never in the inferior nerve-centres. Comparative physiology clearly proves that in the lower types the homologues of these inferior centres are the seats of consciousness. The true implication is that in any case the seat of consciousness is that nervous centre to which, mediately or immediately, the most heterogeneous impressions are brought, and it is highly probable that, in the course of nervous evolution, centres that were once the highest are supplanted by others in which coördination is carried a stage further and which thereupon become the places of feeling, while the centres before predominant become automatic.

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**Ensuing quotations are all from this work.

Congruous with this conception is the fact that certain nerve-activities which have subjective sides early in life cease to have them later in life. Many of the acts performed by the child slowly and consciously are performed by the adult rapidly and unconsciously. Every step taken during the first efforts to walk has its accompanying distinct feelings. Eventually, however, the successive steps are made while consciousness is wholly or almost wholly occupied with other feelings. A more striking substantiation of the point under consideration is afforded by the speech faculty. Each muscular adjustment of the vocal organs and each articulate sound made, has, in childhood, concomitant states of feeling which are vivid and, for the moment, all absorbing. Gradually, however, these become less dominant in consciousness, until, at maturity, there is entire oblivion of the one, and sometimes partial oblivion of the other.

In these simple and universally comprehensible facts the orthodox psychologist finds explanation of such verbal mistakes as are frequently made in the heat of discussion or under conditions of fatigue or embarrassment. The acceptance by Freud of this interpretation would have left him no foundation upon which to build his psychoanalytic concept. According to his preconceived notion, concealment of grave significance lies in a slip of the tongue and other similar errors. In the tongue-slip, so he claims, there is an interfering intention, and this may stand in significant relation to the intention interfered with. Hence, the former contains a contradiction of the latter, correcting or supplementing it. "Or, to take a less intelligible and more interesting case, the interfering intention has nothing to do with the intention interfered with." This latter case is certainly less intelligible. Proofs of the first of the two relations are, however, to be found on every hand. Here is an example: A lady known for her energetic disposition relates: "My husband asked the doctor what diet he should keep. But the doctor said he didn't need any diet, he should eat and drink whatever *I* want." This slip of the tongue is held by Freud to be a quite unmistakable expression of a consistent purpose.

Freud then assures us that poets make use of slips of the tongue, or some other error as a means of poetic presentation, and reminds us that this fact in itself must prove to us that he (the poet) considers the error, the slip of the tongue for instance, as meaningful. When a person speaking in the German tongue employs the word "auf-gestossen" twice in one and the same sentence and then shortly afterward utters this word again when he means "angestossen" there is, so Freud maintains, only one interpretation. The person in question may strongly deny that the wrong use of the word was intentional. He may even betray rudeness in his denial. His very rudeness about it all shows that he has a strong personal interest in having his slip mean nothing.

Forgetfulness is likewise fraught with deep meaning. Freud tells us that he was once the guest of a young couple and heard the wife laughingly tell of a recent experience, to wit—that on the day after her return from her honeymoon she had hunted up her unmarried sister in order to go shopping with her, as she had on former occasions. Suddenly she noticed a gentleman on the other side of the street and nudged her sister, saying, "Why look, there there goes Mr. K." She had forgotten that this gentleman was her husband of some weeks' standing. Freud says he shuddered at this tale, but did not dare to draw the inference. The little anecdote did not occur to him again until a full year later, at which time the marriage of the young woman concerned had come to a most unhappy end.

A political paper, accused of corruptibility, defends itself in an article meant to reach a climax in the words: "Our readers will testify that we have always interceded for the good of all in the most *disinterested* manner." But the editor who had been entrusted with the composition of the defence, wrote, "in the most *interested* manner." Freud's notion of what went on in the editor's mind is this: "To be sure, I have to write this way, but I know better. A representative of the people who urges that the Kaiser should be told the truth 'rückhaltlos (unreservedly)' hears an inner voice which is frightened by his boldness, and which through a slip changes the 'rückhaltlos' into 'Rückgratlos (without back bone)'. "

Sometimes there is no lack of associative connection between the interfering and the interfered with, yet it is not given in the content, but artificially restored, often by forced connecting links. Freud relates a simple example of this observed by himself. He says: "In our beautiful Dolomites, I meet two Viennese ladies who are gotten up as tourists. I accompany them a short distance and we discuss the pleasures, but also the difficulties of the tourist's mode of life. One lady admits that this way of spending the day entails much discomfort. ' 'Tis true,' she says, 'that it is not at all pleasant, when one has tramped all day in the sun, and waist and shirt are soaked through.' At this point in the sentence she suddenly has to overcome a slight hesitancy. Then she continues: 'But then, when one gets *nach Hose*, and can change. . . . ' Freud, so he says, did not analyze this slip, but calls attention to its easy intelligibility. The lady wanted to make the enumeration more complete and to say: 'waist, shirt *and drawers.*' For motives of propriety, the mention of the drawers (*Hose*) was suppressed, but in the next sentence of quite independent content the unuttered word came to light as a distortion of the similar word, house (*Hause*).

Other slips are at hand in great variety; to wit, slips of the pen, slips in reading, slips in keeping one's appointment with one's fiancée, and many others. What is their significance? According to our author, some take the place of the *Omina* or omens of the ancients, while others clearly portray conflict. Consider, for example, the ghastly world-conflict brought about by a German "slip of paper," not much over a decade ago. Be this as it may, the point of greatest significance about the phenomena in question is this: If a person in the full tide of consciousness clearly betrays, by a simple slip of tongue or pen, that his language really expresses what is going on in his mind and not at all what he insists is going on; and if this insistence is associated with rudeness and suspicious vehemence, it is utterly absurd to place any confidence whatsoever in what he relates about what goes on in the various compartments of his mind in states of lessened consciousness—more particularly in revery and sleep.

Carried away by the compelling logic of what just precedes Freud began his study of dreams as preparation for the study of the neuroses. The dream, he contends, is a neurotic symptom. Science therefore cannot afford to ignore dreams. All ancient peoples attached great importance to them. When Alexander the Great undertook his campaign of conquest, the most famous dream interpreters were in attendance. Hence, it behooves us to follow in the footsteps of the ancients, and not dismiss the whole matter by saying that the dream is not a psychic act but merely the manifestation of bodily irritation in the psychic life. As has already been said, if slips of the tongue and other errors can have a deep meaning, certainly the dream can too; one should be open-minded enough to admit that much. But one should go farther, as Freud does. In what direction? This: If the dream were merely what it appears to our intelligence to be—that is to say, the result either of somatic stimuli of the most varied order, notably indigestion, full bladder, reflex genital excitation and a horde of other banalities—there would be nothing in the least worth while about it to psychoanalyze. Hence, as Freud says: "We must find a new path, a new method, in order to proceed with the investigation of the dream." Continuing, he says: " I shall now make an obvious suggestion. Let us *assume,* as an hypothesis for everything which follows, that *the dream is not a somatic but a psychic phenomenon.* You appreciate the significance of that statement, but what justification have we for making it? None; but that alone need not deter us from making it. The matter stands thus: If the dream is a somatic phenomenon, it does not concern us. It can be of interest to us only on the supposition that it is a *psychic* phenomenon."

With this entirely reasonable assumption as a start, Freud proposes to let the dreamer himself tell the meaning of his dream. But the dreamer, so it appears, invariably says that he knows nothing about it. This obstacle to a scientific understanding of dreams seems insuperable. In reality it is not so. It is very possible, in fact, probable, that the dreamer does know what his dream means, but does *not know that he knows, and therefore believes he does not know.* Bernheim beautifully established the tenability of this point, through hypnosis. A man was placed in the somnambulistic state and allowed to have all manner of hallucinatory experience. On being waked it seemed at first as if he could recall nothing. Bernheim insisted that he could recall something, whereupon the subject began to rack his memory and recalled, in a shadowy way, first one of the suggested experiences, then another. The recollection became more and more complete and was, in the end, brought forth without a gap. The fact that the subject had this knowledge finally, and that he had no experiences from any other source in the meantime, permits the conclusion that he knew of these recollections in the beginning. They were merely inaccessible, he did not know that he knew them; he believed that he did not know them. Now, if sleep and hypnosis are one and the same thing and, naturally, Freud firmly believes that they are, it is certain that a dreamer knows perfectly well what his dream means, but is stubbornly averse to telling it.

We now come to the dream technique which, so Freud assures us, is very simple. The analyzed person has only to indulge in self-observation which is an entirely uncritical process. To put the matter in a different form, he has but to let himself go and tell not only what he dreams, but everything else that may occur to him in connection with the dream; nothing, no matter how trivial or revolting, must be held back. In some cases there is not the slightest desire on the dreamer's part to withhold anything, but it is difficult for him to make manifest to the analyst important connotations of the dream. This obstacle is easily levelled by free association. A few hints from the analyst smooths the way for the fullest possible recital.

The importance of a complete story with regard to the dream is in one sense nil, in another paramount. Freud handles this paradox in his customary convincing way. He affirms that the manifest content of every or nearly every dream is merely a mask, often, I would add, an ugly and terrifying one, to hide the real meaning, or, as he terms it, the *latent* content of the dream which must be sought for in the *unconscious.* Now, so it seems, every dream is a wish-fulfillment. This notion is at first difficult to grasp, but here again psychoanalysis smooths the path of understanding. The latent dream thoughts are the material which a certain activity, known as the *dream-work,* remolds into the manifest dream. Or rather it regularly adds something which does not belong to the latent thoughts of waking, but which is the essential motive of dream formation. This indispensable ingredient is at the same time the unconscious wish, for the fulfillment of which the dream content is rebuilt. The dream may be any conceivable thing, if you take into account only the thoughts represented by it, warning, resolution, preparation, etc.; it is also always the fulfillment of an unknown wish, and it is this only if you look upon it as the result of the dream-work. A dream is never itself a resolution, etc., translated into an archaic form of expression with the help of the unconscious wish, and changed about for the purpose of fulfilling this wish. The one characteristic, wish-fulfillment, is constant; the other may vary; it may itself be a wish at times, so that the dream, with the aid of an unconscious wish, presents as fulfilled a latent wish out of waking hours. All this you probably knew before. Even so, review of our knowledge can do no harm.

Let us now digress for a moment and consider the *unconscious.* According to Freud, the unconscious is the larger circle which includes within itself the smaller circle of the conscious; everything conscious has its preliminary step in the unconscious, whereas the unconscious may stop with this step and still claim full value as a psychic activity. Properly speaking, the unconscious is the real psychic; its inner nature is just as unknown to us as the reality of the external world, and it is just as imperfectly reported to us through the data of consciousness as is the external world through the indications of our sensory organs. This last statement shows clearly that in Freudianism, as in Eddyism and Spiritism, no real progress toward recovery can possibly be hoped for by sufferers until they have schooled themselves to reject unreservedly the evidence of their senses.

The next Freudian revelation we are called upon to face is that the materials of childhood experiences are accessible to the dream; hence, the unconscious in our psychic life is the infantile. Having set forth these facts, I will now follow the Freudian habit of changing the subject again. What is the universal wish of which the dream is the fulfillment? The answer does not leap at once to the mind but, even on relatively brief reflection, we realize that when we hear an infant referred to as *he* or *she,* we think at once of its sex; hence, for the purpose of psychoanalysis the sexual and the infantile are indissolubly linked; and from all this we conclude that the dream wish involves the matter of sexuality in some form.

Hereinafter the Freudian term *libido* will stand for sexuality in every one of its many forms. Is there an infantile *libido?* Most assuredly. Abundant proof of this statement is everywhere at hand. Many, I think I may say the majority, of us think that an infant sucks at the nipple of the maternal breast merely to satisfy the instinct of hunger. In this we are wrong, at least in part. From the moment the infantile stomach is full, and it is easy to tell when it is full by the bulge below the costal border, a continuance of the sucking movement clearly denotes that the child's *libido* is coming in for its share of satisfaction. If at that point the nipple is forcibly withdrawn from the mouth of the infant, the latter will suck any one of a number of things; its thumb, its toe, a tin of Paris green—the list is endless; in fact, it would be harder to say what it won't suck, in pursuit of what Freud terms *organic pleasure.*

Many, if not all, infants delay the passage of feces through the anal orifice merely to prolong the pleasure in question, and the majority of them delight in urinating, while sitting in a person's lap. Whether or not this pleasure is enhanced by the fact that the person in whose lap the infant is sitting is of the opposite sex, Freud does not, to my knowledge, state. He does say, however, that the kiss, which, as everybody knows, consists in the union of two erogenous mouth zones in place of the respective genitals, is potentially perverse. And kissing plays a very large part in child life, as we likewise know.

From the third year on, there is no longer any doubt in Freud's mind, concerning the presence of a sexual life in the child. At this time the genitals already begin to become active; there is perhaps regularly a period of infantile masturbation, in other words, a gratification by means of the genitals. The psychic and social expressions of the sexual life are no longer absent; choice of an object, affectionate preference for certain persons, indeed, a leaning toward one of the two sexes, jealousy—all these have been established independently by unprejudiced (sic) observation, prior to the advent of psychoanalysis, and confirmed by every careful observer.*

Many of you may say that you have no doubt as to the early awakening of affection; you may take issue only with its sexual nature. And you may not. Be this as it may, children between the ages of three and eight have (so Freud contends) already learned to hide these things, but if you look sharply you can always gather sufficient evidence of the "sexual" purpose of this affection. What escapes you will be amply supplied by investigation. The sexual goals of this period of life are most intimately connected with the contemporaneous sexual theories. The perverse nature of some of these goals is the result of the constitutional immaturity of the child, who has not yet discovered the goal of the act of copulation.

From about the sixth or the eighth year on a pause in, and reversion of, sexual development are noticeable, which in the cases that reach the highest cultural standard deserve the name of *latent period.* The latent period may also fail to appear and there need not be an interruption of sexual activity and sexual interests at any period. Most of the experiences and impulses prior to the latent period then fall victim to the infantile amnesia, which cloaks our earliest childhood and makes us strangers to it. In every psychoanalysis we are confronted with the task of leading this forgotten period of life back into memory; one cannot resist the supposition that the beginning of sexual life it contains furnishes the motive for this forgetting, namely, that this forgetting is a result of suppression.

The sexual life of the child shows from the third year that it has much in common with that of the adult; it is distinguished from the latter, as we already know, by the lack of stable organization under the primacy of the genitals, by the unavoidable traits of perversion, and, naturally, by the far lesser intensity of the whole impulse. Theoretically, the most interesting phases of the sexual development or, as we would rather say, the *libido*-development so far as theory is concerned, lie back of this period. This development is so rapidly gone through that perhaps it would never have been possible for direct observation to grasp its fleeting pictures. Psychoanalytic investigation of the neuroses has for the first time made it possible to discover more remote phases of the *libido*-development. "These are, to be sure, nothing but constructions but, if you wish to carry on psychoanalysis in a practical way, you will find that they are necessary and valuable constructions. You will soon understand why pathology may disclose conditions which would have overlooked in the normal object."

We can now declare what form the sexual life of the child takes before the primacy of the genitals is established. This primacy is prepared in the first infantile epoch prior to the latent period, and is continuously organized from puberty on. There is in this early period a sort of loose organization, which we shall call *pre-genital.* In the foreground of this phase, however, the partial instincts of the genitals are not prominent, rather the sadistic and anal. The contrast between masculine and feminine plays no part as yet, its place is taken by the contrast between active and passive which we may designate as the forerunner of sexual polarity, with which it is later fused. That which appears masculine to us in the activity of this phase, observed from the standpoint of the later genital stage, is the expression of an instinct to mastery, which may border on cruelty or, in other words, on the Sadistic. Impulses with passive goals attach themselves to the erogenous zone of the rectal opening. Most important at this time, curiosity and the instinct to watch are powerful. The genital really takes part in the sexual life only in its rôle as excretory organ for the bladder. Objects are not lacking to the partial impulses of this period, but they do not necessarily combine into a single object. The sadistico-anal organization is the step antecedent to the phase of genital primacy. "A more penetrating study furnishes proof how much of this is retained for the later and final form, and in what ways its partial instincts are forced into line under the new genital organization. Back of the sadistico-anal phase of *libido*-development, we get a view of an earlier, even more primitive phase of organization, in which the erogenous mouth-zone plays the chief rôle."

I have already shown how easily the erotic component of the act of sucking the maternal nipple gives up this foreign object and replaces it by some part of the infant's own body, a thumb or toe or what not. Proceeding from the simple to the complex, this erotic tendency transfers itself from the infant's own body to a foreign body. The transfer is greatly facilitated if the object of transfer is complete, *i. e.*, a body similar to its own. With the suckling, the erotic transfer in question is from the maternal nipple to the mother as a whole. The mother, then, becomes her offspring's first *object of love*, as Freud terms it. But directly she does, the psychic work of suppression which withdraws the knowledge of a part of his sexual goal from his consciousness has already begun in the child. Permit me to call your attention sharply to this last statement. Can Freud really mean that the process of withdrawal is from the conscious to the unconscious? This is quite at variance with his previous assertion that "everything conscious has its preliminary step in the unconscious." It is, probably, merely an example of pen-slip.

To proceed. The selection of the mother as the object of love involves everything we understand by the Oedipus complex *which has come to have such great significance in the psychoanalytic explanation of neuroses.** You are all, doubtless, familiar with the Greek myth of King Oedipus who was destined by the fates to kill his father and take his mother to wife; but are you equally familiar with the fact that, in this and other myths, Freud has discovered the explanation not only of the major part of human behavior but of the incoercibly stubborn resistance of certain psychoses and neuroses toward any form whatsoever of therapy? Well, such is the case. Basing his opinion on the Oedipus myth, Freud assures us that when a boy's affections are bound up in his mother, the reason is to be sought in incestuous desire. Girls, he also assures us, have the same incestuous love for their fathers. In other words, they suffer from the Electra-complex, a notion which also has its origin in a myth. Another common fiaxtion of the *libido* is upon one's self, to the exclusion of outside objects. This curious trend of the *libido* Freud likewise explains through mythology. From our classical studies we remember that the mythical youth, Narcissus, was so enamored of himself that he spent most of his time admiring the reflection of himself in the water. In modern times the victim of Narcissism employs a mirror. This form of *libido*-fixation is very widespread. Even very young children frequently stand stark naked before bathroom mirrors, in shameless admiration of themselves. Grown-ups do the same thing in Turkish baths, but explain their action by saying that they are looking to see if girth-reduction is proceeding satisfactorily. Be this as it may, the existence of either the Oedipus or the Narcissus complex in *neurosis* (sic) absolutely precludes a cure by psychoanalysis, as we shall presently see.

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*Freud cites no authorities either for this or for the preceding somewhat astonishing statements.

Having established the fact that infancy and *libido* are practically one and the same thing, what is the next step in psychoanalysis? This step is disclosed by a syllogism; infancy and *libido* are identical, adults are but children of a larger growth; therefore adult life and *libido* are identical, only more so.

Psychoanalysis teaches that civilization was forged by the driving force of vital necessity, at the cost of instinct-satisfaction, and that the process is to a large extent constantly repeated anew, since each individual who newly enters the human community repeats the sacrifices of his instinct-satisfaction for the sake of the common good. Among the instinctive forces thus utilized, the sexual impulses play a significant rôle. They are thereby sublimated, i. e., they are diverted from their sexual goals and directed to ends socially higher and no longer sexual. But this result is unstable. The sexual instincts are poorly tamed. Each individual who wishes to ally himself with the achievements of civilization is exposed to the danger of having his sexual instincts rebel against this sublimation.

For the explanation of this last statement we must revert again to the *unconscious*. There it is that the rebellion goes on incessantly. Just as the world about us is inhabited by people of one sex or the other, with a sprinkling of hermaphrodites, so is the *unconscious* filled with libidinous ideas, normal and abnormal. At night, if you sleep nights, these ideas try to force their way into that part of your mind which is in some measure conscious. But just at the threshold which lies between the unconscious and the partly-conscious mind stands a censor. This censor is your Ego, and will hereinafter be referred to as such. Through its unlimited acquaintance with symbols and their libidinous meanings and connotations, the Ego is alert to every attempt of the *libido* to force itself into consciousness where it has no right to trespass.

Before the advent of Freud the Ego probably had no knowledge of symbols, and I suspect that the *libido* used to be a part of the Ego, but it certainly is not at the present time. On this point we have Freud's authoritative pronouncement, as follows: "No one can contest our perfect justification in separating the Ego from sexual instincts." In any case, the Ego seems to repress such instincts in every possible way. It would, I fear, take overlong to explain the different ways in which the Ego interferes with the dream expressions of the instincts in question. It distorts and displaces them, turns them into jokes, makes their visual representations grotesque or ghastly; in a few words, it so changes the whole dream that one not adept in the use of symbols would never, by any chance, surmise that the meaning of a *manifest* dream and that of a *latent* dream were identical.

With symbols, the work of interpretation is much easier, even if it does take years sometimes to achieve it. The point is that the symbols *all* have sexual significance. To illustrate—anything the dream censor may have distorted into something, no matter what, which resembles the male genitalia, does, in fact, refer to the male genitalia. And the same is true as regards the female genitalia. For example, a wooden chest may symbolize the entire woman. If you, by chance, do not understand how wood has come to be a substitute for the maternal, the feminine, Freud's explanation will be very helpful. He says: "The German word *Holz* (wood) is said to be from the same stem as the Greek word which means stuff, raw material. There is an island in the ocean, known by the name of Madeira. The Portuguese gave it this name at the time of its discovery because it was at that time entirely covered with forests, for in the language of the Portuguese, Madeira means wood. You will recognize, however, that *Madeira* is nothing else than the slightly changed Latin word *materia* which again has the general meaning of material.

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*The italics are the writer's.

Material is derived from *mater,* mother. The material out of which something is made, is at the same time its mother-part. In the symbolic use of wood for woman, mother, this ancient conception still lives."

In many, indeed I may say, in the majority of us, the conflict between our dream Ego and our *libido* goes on daily without attracting our attention in the slightest degree. Our Ego evidently has our *libido* well in hand, sublimates it, and uses it in high and lofty achievements of one sort or another. In the rest of the world the *libido* slips, so to speak, the leash of the Ego and takes refuge in a neurosis or a psychosis of some sort.

What psychoanalysis can do therapeutically in this contingency depends upon what the *libido* chooses for its fixation point and the tenacity with which it adheres to this point, Freud, basing his opinion on an assertion of K. Abraham, declares that dementia precox is not amenable to psychoanalysis because in that disease the libido is turned back upon the Ego, thus causing the megalomania observed in precocious dements. Anything having a narcissic-complex is hopeless because of the extreme adhesiveness of this particular complex to its fixation point. I have been over the Freudian nosology with care, and hope I quote Freud correctly when I say that it is only in hysteria and in the *anxiety* and *compulsory* neuroses* that psychoanalysis may be looked upon as an efficient therapeutic procedure. In these diseases the cure is effected by what Freud terms a *transference* of the *libido.* What he means by transference will presently be made clear to you in his own words which need no interpretation.

Let us pause for a moment at this point and scrutinize narrowly certain other sources whence the Ego (in the Freud sense) derives its knowledge of the libidinous content of a dreamer's unconscious mind. For the purposes of this scrutiny we must invoke the aid of orthodox psychology, obviously not on its objective but on its subjective side. On the latter side psychology is a totally unique science, independent of and antithetically opposed to all other sciences. *The thoughts and feelings which constitute a consciousness are absolutely inaccessible to any but the possessor of that consciousness.* They form an existence that has no place among the existences with which the rest of the sciences deal. Mind, which is mainly composed of feelings and the relations between feelings, is, therefore, a something without any kinship to other things; hence, the science which essays to discover the laws of this something can have but one avenue of approach to its goal—namely, introspection.

Already we have seen that it is as much as the dreamer can do, by the utmost in introspective efforts, to remember the so-called manifest content of his dream. And to keen and thoroughly trained thinkers, other than Freud and his followers, there is nothing in the dream story, as related by the dreamer, which, even remotely, indicates that the dream is the fulfillment of sexual desires of any order whatsoever. How, then, does the alleged sexual significance of dreams come to be wished upon them, so to speak? The problem is neither subtle nor profound. It all comes about through a process which Freud, in characterizing Bernheim's hypnotic procedures, terms *hocus-pocus.* In other words, the dream is interpreted by a set of symbols as arbitrary and fantastic as those found in the renowned "Gypsy Dream Book" of Mother Shipton. Let it not be thought, even for a moment, that the symbols were evolved by the legitimate process of introspection. We will turn to Freud for the explanation of their origin. On page 130 of his "Introduction to Psychoanalysis" he says: "Where, in fact, are we to find the meaning of these dream symbols, if the dreamer himself can give no information concerning them, or at best can give only incomplete information? My answer is: From many widely different sources, from fairy tales and myths, jokes and farces, from folklore, that is, the knowledge of the customs, usages, sayings and songs of peoples, from the poetic and vulgar language. Everywhere we find the same symbolism, and in many of these instances we understand them without further information. If we follow up each of these sources separately we shall find so many parallels to the dream symbolism that we *must believe** in the correctness of our interpretations."

We may now revert to a consideration of the method by which the psychoanalyzed psychoneurotic divests himself of his burden of misery. This takes place through the medium of *transference,* to which allusion has already been made. On this point Freud speaks as follows: "We mean a transference of emotions to the person of the physician, because we do not believe that the situation of the cure justifies the genesis of such feelings. We rather surmise that this readiness toward emotion originated elsewhere, that it was prepared within the patient, and that the opportunity given by analytic treatment caused it to be transferred to the person of the physician. Transference may occur as a stormy demand for love or in a more moderate form; in place of the desire to be his mistress, the young girl may wish to be adopted as the favored daughter of the old man,* the libidinous desire may be toned down to a proposal of inseparable but ideal and platonic friendship. Some women understand how to sublimate the transference, how to modify it until it attains a kind of fitness for existence; others manifest it in its original, crude and generally impossible form. But fundamentally it is always the same and can never conceal that its origin is derived from the same source." It appears that there may be a hostile transference but "the hostile feelings generally appear later than the affectionate impulses or succeed them. . . We doubt not that the hostile feelings toward the physician deserve the name of transference, since the situation which the treatment creates certainly could not give sufficient cause for their origin. This necessary interpretation of negative transference assures us that we have not mistaken the positive or affectionate emotions that we have similarly named. . . . . We overcome transference by proving to the patient that his feelings do not originate in the present situation, and are not intended for the person of the physician, but merely repeat what happened to him at some former time. . . . . The decisive part of the cure is accomplished by means of the relationship to the physician, the transference, by means of which new editions of the old conflict are created. Under this situation the patient would like to behave as he had behaved originally, but by summoning all his available psychic power we compel him to reach a different decision."

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*Orthodox psychiatry classes these as symptoms, not as clinical entities.

*The italics are the writer's.

*I. e., the physician.

At this point permit me to remind you that the sole purpose of this communication is to demonstrate the nullity of psychoanalysis as a scientific concept. Reduced to its lowest terms, Freud's notion is that the source of human behavior is to be sought in what he arbitrarily terms the *unconscious* mind. This assumed compartment of the psyche he looks upon as the "larger" circle which includes within itself the "smaller" circle or *conscious* mind, and asserts, with equal arbitrariness, that everything conscious has its preliminary step in the unconscious. Now, a moment's sober reflection suffices to convince anyone, whether he be psychologist or street laborer, that among the phenomena of the universe Mind is *sui generis;* hence, permits of no comparison between itself and anything else in the world. It follows, therefore, that all attempts to arrive at an understanding of Mind through analogy are perforce futile. Mind is knowable only through introspection, and introspection at once reveals to us that our *senses* are the raw materials of Mind. Seeing, touching, hearing, smelling and tasting, severally or in various combinations, are indispensable prerequisites to any and every mental operation whatsoever. And as they are all pre-eminently *conscious* acts, no further proof need be adduced to convince us that mental operations do not proceed from the unconscious to the conscious. With this fact established, the foundations of psychoanalysis begin to totter.

Introspection likewise proves to us that although speech is primarily a strikingly conscious process, it ultimately comes to be largely divested of its subjective concomitants and becomes practically automatic—hence, is liable to faulty functioning when factors arise which obstruct the paths that lead from fully formed propositions to the structures which give them vocal expression. In the presence of this easily proven fact, Freud's interpretation of tongue and other "slips" is absurd, and the breach in the foundations of psychoanalysis is widened. Lastly, when we learn from Freud himself that the symbols through which the sexual element is injected into dreams are constructed from myths, jokes, poetry, folklore and other odds and ends gathered at random from sources as far removed from science as the north pole is from the south, the entire psychoanalytic structure topples to earth and becomes nothing but a sorry conglomeration of verbiage.

COMMUNITY ASPECTS OF PSYCHIATRY*

BY GEORGE K. PRATT, M.D.

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THE opportunity to bring his concerns before a body of physicians actively engaged in the amelioration of human suffering is always welcomed by the psychiatrist. It proves two things: first that his calling is beginning to be considered a respectable one, and secondly that the group from whom he can receive greatest help is evincing an interest in his problems.

For discussion there has been chosen in this paper, a side of psychiatry perhaps not so well known as that going on within the confines of the state hopital. As a result we shall deal not so much with insanity and other end results of mental disease as with their beginnings, which invariably occur in the community. The grosser and more obvious forms of mental disease have their symptomatology fairly well defined. It is not, as a rule, exceedingly difficult to diagnosticate them in their chronic and final forms and the problem of their disposition at this stage is largely one of proper and humane placement in a suitable institution.

To recognize them during their making, however, calls for a somewhat greater measure of patience and a radically different view point.

The traditional view point in the past of official medicine—and consequently that also of the public—concerning mental disease was one which looked upon the patient as a rather queer individual, suffering probably from an indiscretion of an ancestor and doomed to lifelong incarceration behind the thick walls of an asylum. It is unnecessary here to recount the advancing steps that medical science took from time to time in changing this concept. Suffice it to say that dungeons and chains gave way to wards and continuous baths; that lunatic asylums were transformed into hospitals for the mentally sick, and that mere custodial care was supplanted by vigorous therapeutic measures. Today our state hospitals for the insane are returning to the community as cured an astonishing percentage of the patients sent them. And this goes on in spite of the refusal of the community to send such institutions any but the active and advanced cases. Stigma, misunderstanding, prejudice: all these are arrayed against the institutional psychiatrist when he pleads that the sick be sent him in the early stages of their illness.

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*Read before the Middlesex East County Medical Society (Mass.), November 19, 1924, at the Harvard Club, Boston.

Associated with these remarkable institutional improvements has also grown a more practical and humane concept of the mentally sick individual himself. No longer is he regarded quite impersonally as the representative of a type. No longer is he carefully examined, diagnosed, labeled and then filed away in a classified pigeon hole. Today something is being done about his troubles, and the former paralyzing and fatalistic influence of our beliefs regarding heredity and cure have been supplanted by an attitude of hope and expectancy in his restoration to health. Today, in the words of Macfie Campbell, the physician is prone to regard mental sufferers, not as crazy persons or pariahs, but as living, flesh and blood men and women in trouble: suffering, hoping, thwarted, groping and crippled.

But medical science has gone further than bringing to bear upon the patient's well developed illness a wealth of therapeutic discoveries. Psychiatry as an important branch of medical science has emerged since the War from the cloistered confines of the state hospital and is now firmly established also in the community. The mental disease enemy is now being attacked on both flanks—and preventive medicine has secured a new ally in the psychiatrist who recognizes mental disease in the making as well as in its more advanced stages. In actual practice this means the psychiatrist has had to follow the example of the tuberculosis specialist or the pediatrician and return to the age of childhood as the logical place in which to commence his attack.

Thus it is that a large portion of the modern psychiatrist's activities are expended among children. Here it is that habits and tendencies are being formed: here it is that personalities and character make-ups are being moulded, and here it is, in the plastic formative years before ten that the real battle for future mental health is won—or lost. It becomes important, then, that the physician who would nip in the bud future nervous or mental menaces give some attention to the early danger signals of this age.

To understand nervous or mental disorders and their causes one finds some knowledge of mental mechanisms and behavior psychology necessary as well as the usual equipment of anatomical and physiological experience. Perhaps the first thing to attain is a willingness to think of the patient as a *whole* human being and not merely an impersonal "case" constructed of two isolated and detachable units, a body and a mind. Then comes the knowledge—and one need not be a Freudian to conceive of this—that the human mind has a conscious and an un- or sub-conscious part, each capable of influencing the other, and, in turn, the conduct of the individual. Fially we must appreciate that just as certain material environments and situations are injurious to physical health, so also are there certain emotional environments crippling to mental health. For example, a marble cutter daily compelled to breathe fine stone dust is in no more danger of becoming incapacitated than is the man or woman compelled by circumstances to live daily in an intolerable situation which conflicts violently with their scruples, their desires, or their morals. The marble cutter develops tuberculosis, and the other, a psychoneurosis.

Lastly must come a bold throwing overboard of traditional instruction which taught that the physician had no special concern with behavior or conduct except in the violently insane. In place of this antiquated attitude must come the appreciation that displays of queer or unusual conduct, warped and twisted personalities, pronounced habits and tendencies, complaints of loneliness, depression, inferiority, being afraid, and a host of other complaints, are just as definitely actual symptoms pointing to mental trouble in the offing as headaches, albuminous urine, pain over McBurney's point, or bloody sputum are symptoms indicating definite physical pathology.

Once these various concepts are acquired the physician is prepared to attempt the Gargantuan task of helping to lay the foundations for sound mental health and to early correct ominous symptoms.

Psychiatry—and especially social psychiatry as distinguished from institutional psychiatry—has made some rather surprising discoveries in reasoning backward from effect to cause as concerns those mental disorders other than insanity. These include the psychoneuroses, constitutional psychopathic states, the varying degrees of defective intelligence, and perhaps most of all, the personality twists and the odd and peculiar character make-ups which defy customary classification.

One of these discoveries concerns heredity. Formerly most of us, in lieu of any better knowledge, were prone to attribute insanity, nervousness, and similar conditions almost entirely to a defective inheritance. Since then we have learned we were not altogether correct in this assumption. Undeniably a defective germ plasm does play an important role in the pathogenesis of some varieties of mental disease, especially those of feeblemindedness and some of the affective psychoses like dementia praecox or manic-depressive insanity. But for the other types of mental abnormalities, our present belief is that more of them are made than are born. An adult psychoneurosis, *per se,* or a peculiar and distorted personality is probably not directly inherited. What may be inherited is a constitutional tendency to these conditions, just as a tuberculous tendency rather than the actual disease is inherited. Thus it is, if the child's lot in life is fairly smooth, if few demands are made on him for mental adjustment to his environment, then this inherited tendency may never become lighted up. Let him be subjected from infancy, however, to a series of strong emotional experiences, let his environment call upon him for a degree of mental adjustment his inferior constitution is not capable of meeting, and not improbably this latent tendency, is fanned into a flame ending in a condition that to all intents and purposes is a full fledged mental disorder.

Another interesting discovery of social psychiatry has been the recognition that a great bulk of adult cases of mental difficulty less than insanity began as apparently harmless habits and tendencies during childhood. This is really the most important discovery of all for it gives us the clue to many heretofore baffling cases.

Thom has performed the most indefatigable research in this field. He has succeeded in isolating a number of childhood personality traits and varieties of conduct which, under the proper stimulation and in a favorable medium, may—but not necessarily will—develop into adult mental disability. Thom sees in the spoiled and pampered child who resorts habitually to a temper tantrum as a means of getting his own way, the future adult nervous invalid with a host of somatic complaints defying pathologic location, and representing a tantrum equivalent. He also sees in certain other cases some thread of connection between the shy, seclusive and chronically day-dreaming child of ten and the shut-in schizophrenic personality of twenty. Or perhaps in an habitual jealousy and over-sensitiveness during childhood he may anticipate an adult failure to get along in the world and a personality marked by bitterness, resentment, and complaints of discrimination.

He has found that imitation plays a monumental part in the creation of undesirable habits and tendencies during the suggestible years of childhood and that many a high-strung, nervous and emotional child is merely copying the mannerisms of mother or father. The therapeusis of these conditions is complex. Instead of one patient the psychiatrist finds he has several on his hands. Usually the family as well as the child brought for treatment requires attention, and this must be given in a manner involving a degree of diplomacy worthy of a Gladstone.

The point of all this is that the physician may well afford to recognize undesirable habits, tendencies and personalities in childhood—not merely as examples of "badness" or sheer cussedness, but as definite warnings of the truth of that old maxim: "As the twig is bent, so is the tree inclined." White has well said "Childhood is the golden period for mental hygiene."

The physician also sees many cases of mental disease, less than insanity, among adults in the community. Most frequent of these perhaps is the neurotic patient, possibly of the chronic nervous invalid type. Sometimes the doctor regards this man or woman as an office nuisance, while at others he becomes resigned to their oft repeated complaints of myriads of physical symptoms and prescribes the customary placebo.

At one time many honest but blunt and practical-minded doctors were prone to dismiss the nervous patient with a brusque "Stop worrying—it's just nerves." Now "Just nerves" is an infuriating verdict to thousands of men and women who have hopefully sought medical advice for the relief of discomfort and who have been given the scanty consolation of being told "It's all imagination." To them their symptoms are very real and very painful and *they* are sure there is no imagination about it. As a result of these well-meant medical rebuffs many of them drift to the ranks of the Christian Scientists, the chiropractors, the religious healers and other cults who everywhere have sprung into being solely to capitalize this very human quest for health.

The psychiatrist recognizes in these cultists and faddists a preponderant majority of unstable, neurotic, and badly twisted personalities, many of whose troublesome careers might have been detected and turned into more healthy channels had they been accorded a practical medical understanding.

In the genesis of neurotic disorders the psychiatrist again sees a series of influences, more environmental than physical, producing them. While the so-called conflict theory of causation of psychoneuroses does not account for all cases by any means, this functional conception is probably the most frequent single cause encountered. Here, too, the physician who would understand the *raison d'etre* for the condition of many of his nervous patients must be willing to throw overboard any preconceived certainty that all of them can be accounted for on an organic basis. Myerson has most admirably summed up the relation between mental conflicts and psychoneuroses in the following words:

"Every human being is a pot boiling with desires, passions, lusts, wishes, purposes, ideas, and emotion, some of which he clearly recognizes and clearly admits, and some of which he does not clearly recognize and which he would deny. These desires, passions, purposes, etc., are not in harmony one with one another; they are often irreconcilable, and one has to be smothered for the sake of the other. Thus a sex feeling that is not legitimate, an illicit forbidden love has to be conquered for the sake of the purpose to be religious or good, or the desire to be respected. So one may struggle against a hatred for a person whom one should love—a husband, a wife, an invalid parent, or child whose care is a burden—and one refuses to recognize that there is such a struggle. So one may seek to suppress jealousy, envy of the nearest and dearest; soul-stirring, forbidden passions; secret revolt against morality and law which may (and often does) rage in the most puritanical breast.

"In the theory of the subconscious these undesired thoughts, feelings, passions, wishes, are repressed and pushed into the innermost recesses of the being out of the light of the conscious personality, but nevertheless, acting on the personality, distorting it, wearying it.

"However this may be, there is struggle, conflict in every human breast and especially difficult and undecided struggles in the case of the psychoneurotic. Literally, secretly or otherwise, he is a house divided against himself, deenergized by fear, disgust, revolt, and conflict. It is in these conflicts and their results that the major part of neurasthenia, psychasthenia, and hysteria arises, in disgust, dissatisfaction, impotent revolt, and the splitting of the personality that comes when one part of us cannot live harmoniously with other parts."

Psychiatry in the community is a vastly different type of psychiatry than that found in the state hospital. The social psychiatrist sees mental disease in the making; he sees the patient in his familiar setting and he sees how the patient fits in, or fails to fit in, to the social organization of the community. The social psychiatrist appreciates to the full the significance of physical factors in bringing the patient to his present state of disability but he also appreciates that badly used emotional equipments, misunderstood mental mechanisms and unfavorable mental environments likewise contribute in no small measure to this disaster.

The hope of psychiatry lies in a keener knowledge of, and a broader sympathy for, mental troubles on the part of the general physician. Without his enlightened interest and active aid little if anything can be done. In every community the general practitioner is the public health leader to whom the lay citizen looks for advice and help. If this physician be backward or indifferent to these issues, then also the citizen grows apathetic and disinterested. If the physician is unfamiliar with the symptoms of early departures from mental health and by his attitude gives the impression that the patient's complaints are of little consequence, or that because of their social rather than their physical significance, they fail to come within the province of the medical man, how then are we to blame the layman for not being sensitive to the importance of this great task in preventive medicine? If the physician hesitates to refer patients in the early stages of serious mental disease to the state hospital, who is to criticize the family for failing to take this step until chronicity and hopelessness have arrived?

There can be no escaping this responsibility by the general physician. To him, rather than to the specialist, comes the patient at the beginnings of his illness. To him are confided the first budding fears, the incipient delusions, the growing confusions of a bewildered mind. Into his ear are poured the tales of marital difficulties, of sex incompatibilities, of dissatisfactions, of revolts, of the frantic struggles to become adjusted to a difficult environment. Is he to dismiss these precursors of unhappiness and a life-long disability with a prescription for a placebo? Is he to turn a deaf ear to these supplicants for health; is he to rebuff their pleas for assistance merely because he can find no physical cause for their troubles?

Or is he to enlighten himself as to the significance of these early complaints, to accord them a sober, a kindly and an understanding reception: to undertake, if he has the time or the inclination, their treatment on a par with his frankly physical cases, or to see that they are referred o a competent psychiatrist? Lastly is he to regard departures from mental health in a narrow view that conceives of them as affecting only the patient himself, or is he to think of them in a broader sense, with their inevitable family complications, as menaces to the health, the happiness, and the very foundations of the community?

There is ample evidence within the medical profession to believe that the individual physician will not be found wanting in assuming a rightful leadership in this problem as he invariably has done in physical ones.

It will mean hard work, it will mean changing in some cases one's whole conception of certain types of diseases, it will mean perhaps the painful uprooting of deeply-seated ideas. But once accomplished, is the struggle not worth the effort? Haven Emerson in a recent paper entitled "The Role of Mental Hygiene in the Public Health Movement," says, "It takes a higher type of intelligence, a greater faith, a truer sense of perspective, to foresee the approach of disease and protect against it, to see its enemies from afar, go out to meet them and outflank them, than it does to heal or tend existing disease."

NEW ENGLAND SURGICAL SOCIETY

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INTUSSUSCEPTION*

BY JAMES S. STONE, M. D.

DURING the last few years cases of intussusception of a mild, subacute type have been admitted to The Children's Hospital much more frequently than formerly.

To Clubbe of Sydney, Australia, we owe much for his classic monograph on Intussusception. His description of the symptoms of this terrible emergency of infancy and early childhood is so vivid that it has unquestionably made the early recognition of the disease more easy, and thus has made the cure more frequent. It has been thoroughly established that surgical intervention is the sole method of treatment to be considered, that the mortality is relatively low if operation is performed within the first thirty hours and that in cases operated upon at a later period the mortality rate rises very rapidly.

Physicians have become very alert in noting the early symptoms of intussusception. This is due largely to the increasing number of those who devote themselves to pediatrics. The tremendous falling off in the number of cases of severe diarrhoea in babies has largely eliminated a common cause of blood and mucus in the stools and has thus given added significance to this condition as one strongly suggesting intussusception.

In a typical case of acute intussusception a baby previously well is seized suddenly with abdominal pain associated with symptoms of shock. The pain comes in paroxysms, often with intervals of comfort between the attacks. The shock manifests itself by pallor, cold sweat, nausea or vomiting. The vomiting at first is purely reflex in character. Clubbe emphasizes repeatedly that the mother's story must never be neglected. Her baby may have had abdominal pain before but she is alarmed because in addition to the pain there are the symptoms of shock just mentioned. The combination of symptoms is new and alarming to her.

The next symptoms to appear are those due entirely to circulatory disturbances in the mesentery. As the bowel invaginates further and further, more and more mesentery is inevitably included in the tight ring through which the advancing loop enters. Venous congestion occurs very promptly. There is an outpouring of mucus which promptly becomes blood stained and soon becomes pure blood. The congestion is identical with that which occurs in haemorrhoids which become caught down outside the sphincter.

The tumor made by an intussusception is usually easily felt late in the course of the trouble but in the first few hours it almost always lies underneath the liver at the hepatic flexure where it can be felt only with great difficulty. This location of the tumor is due to the fact that the vast majority of cases begin by the passage of the ileum through the ileo-caecal valve, and that when the trouble does not originate thus it usually begins in the low ileum at a Meckels diverticulum which becomes inverted or at a fibroma in the same region. Intestinal obstruction and toxemia come on very rapidly in the typical acute cases.

The clear recognition of the classic symptoms is resulting in earlier operations and consequently in better results. But it is bringing to the notice of the surgeon some patients at a time when the diagnosis is difficult. Diagnosis late in the course of intussuception and early in the typical acute cases is always easy. But physicians are now sending in to The Children's Hospital patients with some of the suggestive symptoms but without all the conditions considered characteristic. The result has been a failure to make prompt diagnoses in some cases of mild, recurring, and chronic intussusception. Instead of begging the clinician to send in patients promptly it is necessary for the surgeon to revise his ideas regarding the symptoms in certain unusual cases.

A few illustrations may be given. A girl two years old was sent to The Children's Hospital by the family physician because of abdominal pain, the passage of blood and the presence of a tumor. After entrance there was very little bleeding and no tumor could be felt. The child had pain and slight bleeding and was under observation from time to time for a month in two hospitals before the characteristic tumor was felt. At the operation there was an easily reduced intussusception about six inches long. There had been a dangerous delay of a month.

A boy of three years had been ill for six weeks. In this case there had been no very severe symptoms at any time but there had been the abdominal pain and bleeding and a doubtful tumor. At operation the reduction of a large intussusception was very easy, but the risk of strangulation and peritonitis should not have been taken.

A girl a year and a half old had an intussusception for five days. The child seemed very sick. The outlook was poor. There had been profuse bleeding from the bowel. At operation an intussusception was found which started at the ileo-caecal valve and reached to the sigmoid. It was reduced with perfect ease. There was no congestion of the bowel and there were no adhesions. In this case there was no delay in the hospital. It is mentioned as a case in which the circulation remained unimpaired even in a large intussusception.

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*Read at the annual meeting, September 26, 1924.

One very interesting case is that of a girl two and a half years old who was brought into the hospital because of loss of appetite, constipation, persistent slight bleeding and profound secondary anaemia. A tumor could be felt in the right iliac region. She had been ill for nine months. The clinical history and the physical examination led Dr. K. G. Percy to make the correct diagnosis of an intussusception which had sloughed off and had left behind an area of obstruction and ulceration. The child had also a congenital anomaly of the bowel which passed through a circular hole in the mesentery of the ileum. The caecum lay in the left hypochondrium. The child recovered after two operations, the first a resection of the bowel at the location of the original intussusception and the second a resection to permit an untangling of the congenital anomaly.

Apparently the severity of the symptoms depends largely upon the degree of obstruction to the circulation in the involved bowel. This may be so extreme as to lead to very rapid thrombosis and consequently to a marked toxaemia. This condition has so often been seen by the surgeon in the past that there is a risk of his expecting to find the symptoms of intussusception more severe and threatening than they are in certain milder, chronic and recurring types.

In making a diagnosis even in these doubtful cases the history is of supreme importance. The presence or absence of a palpable tumor depends upon its size and position. Both may vary particularly in the recurring cases. Fortunately the clinicians are getting patients to the operating table now so early that cases in which the bowel is gangrenous or irreducible are not as common as formerly. When these conditions are encountered they are best met by leaving out both ends of the resected bowel, even in spite of the dangers and difficulties of caring for an enterostomy in a baby. Preferably the two loops of bowel in these cases should be so placed that they may be anastomosed by crushing clamps later if this is desirable.

But the point to be emphasized particularly is the need that the surgeon revise his ideas as to diagnosis and the need of operation in the milder, subacute, and recurring types of intussusception. Accustomed to seeing the cases late it is necessary for the surgeon to recognize the fact that clinicians are referring cases very early and therefore many with symptoms very much more obscure than are those which have been familiar in the past.

Dr. Edward P. Richardson, Boston: I am very much interested by these two papers and in the general subject of intussusception. Since my personal experience is small, I have looked over the material in the Massachusetts General Hospital for the last 25 years. There has been no case comparable to the one that Dr. Gile reports, but there have been cases of intussusception in adults. On account of our limited children's service intussusception in adults appears relatively more common than it actually is. A little over one third of the cases occurred in adults, but on the average there has been only about one adult case a year.

Both the symptomatology and pathology in the adult are somewhat different from what is found in children or infants. Clinically the condition is much less definite. Blood in the stools and a palpable tumor are less frequently present. In many cases there was error in diagnosis, although it was clear that there was an acute abdominal condition, probably obstructive in type. As to pathology, in infants and young children the intussusception consists with rare exceptions of invagination of the small intestine into the large intestine. In adults about one half of the cases are of this type. About a fifth of this series of cases were invaginations of the *large* bowel into the *large* bowel, and a somewhat greater number were invaginations of the *small* into the *small* intestine. In the earlier cases there was no note of any definite cause for the intussusception. Of the last eight cases five showed a definite cause for the intussusception, in three cases a tumor of the bowel, in one a diverticulum, and in one an ulcer which produced partial constriction.

The points I want to speak of particularly are these: Suppose you operate for an intussusception, reduce it and find a tumor at the apex of the entering bowel; in the presence of obstruction and distended intestine you do not want to open the bowel to remove the tumor on account of the very great increase in the operative danger, and so you sew the patient up. What should you advise after that? There have been only two cases of recurring intussusception, both of which had a tumor. The first case recovered after resection at the second operation. The other case died of the third intussusception; and the tumor was never removed. It seems to me where a tumor is recognized that the advisability of removing it after recovery from the intussusception should be seriously considered.

Another question is: What should be done for an intussusception which cannot be reduced? In a recent adult case, I am ashamed to say it took a long time to recognize the patient's pathology. We had volvulus and strangulation in mind, and the tense mesentery looked like a band which I wanted to free. Resection was impossible. I left the intussusception outside the abdomen and did a double enterostomy, one draining the intussusception, and one in the bowel above it. The intussusceptum sloughed out and the patient recovered after a later resection. This was very difficult, and the patient barely recovered with a transfusion. The mortality is likely to be high in such secondary operations. The type of operation described by Dr. Stone, resection of the mass and leaving the open ends of the bowel sutured in approximation in the wound, seems to me the best way in general of treating these cases where the intussusception cannot be reduced.

Dr. Robert C. Cochrane, Boston: My experience has been necessarily rather limited in these cases. It seems to me ten years ago in the hospitals we frequently had to operate on patients with general peritonitis due to appendicitis, but that condition has changed because of the education of the general practitioner; and the same thing is true in regard to intussusception. At the present time we are getting cases into the hospital earlier than we did before.

As Dr. Stone has said, the importance of the history in making the diagnosis cannot be overemphasized. Usually the mother knows that there is something radically wrong with the child and brings the child to the hospital. As in all cases of obstruction the need for early operation cannot be stated too strongly, and the importance of enterostomy also should be emphasized.

It occurred to me possibly that the reason for the uneventful convalescence in Dr. Gile's case was the presence of an enterostomy. As Dr. Richardson remarked, in the cases of recurrent intussusception where the patient seems too sick to stand a resection at the time, it seems reasonable to do an enterostomy, and then resect when the patient has recovered, rather than wait for recurrence of the intussusception.

Dr. William C. Peters, Bangor: Recently I saw, but did not treat a case which might be interesting. Four people were hurt in an automobile accident and came under my care because of fractured bones. One boy, aged 8, had an abdominal injury with signs of shock. The General Surgeon decided upon laparotomy about nine hours after the accident. When the abdomen was opened three distinct intussusceptions were found, one about three inches long, the others somewhat smaller. I am interested to know whether or not they would have spontaneously reduced if the abdomen had not been opened.

Dr. Ernest Wells, Hartford: I have encountered two cases of what one might call "double intussusception." Both were in children; one, two years ago, and one, two weeks ago. In both cases, the intussusception was in the usual place, at the iliocecal valve, and had traveled through the whole length of the colon and was palpable through the anus. In both cases there was a reverse intussusception starting in the sigmoid, the sigmoid entered from below and traveled toward the iliocecal valve. It must have traveled inside the descending colon but outside the primary intussusception. It had apparently traveled to just below the splenic flexure of the colon. It would almost seem as though this reverse intussusception was an effort on the part of nature to undo the primary intussusception. This reverse intussusception had to be extricated before one could attempt the reduction of the primary one. In the case that I saw two years ago, this was impossible and I had to d an extensive resection. In the case that I saw two weeks ago, I was able to reduce both intussusceptions and I was able to demonstrate the reality of what I have described above to a number of bystanders. The first case promptly died of post-operative shock. The second case I thought was going to do well but it died suddenly of a pulmonary embolus the following day. Are these cases of "double intussusception" unusual?

Dr. R. H. Seelye, Springfield: I have often wondered why, in the absence of pathological evidence, the small intestine should involute itself into the large intestine at the ileocecal valve. I have never seen a case recur after it has been reduced, but have felt that where the reduction was easy such a thing might easily happen, and have for the past few years taken the precaution to catch the ileum up along the ascending colon with a few stitches with an idea of preventing it from starting up into the ileocecal valve again.

I remember an interesting case of a woman, 20 years old, which had persisted for some days. There was a sausage shaped mass seven inches long and three inches in diameter which was perfectly solid and had to be removed en masse. I did an end to end anastomosis with good result. It is the only case I have seen of an intussusception in an adult.

Dr. Walter G. Phippen, Salem: Dr. Seelye's remarks bring to my mind a case of intussusception that I operated on not long ago. The mother gave a very definite, characteristic history and the consultant, with whom I saw the case, had made the diagnosis and sent the child to the hospital. He thought that at his first examination he could feel a tumor. I could not feel a tumor, but the history was so characteristic I thought it wise to operate. On opening the abdomen I found a reddened, slightly swollen appendix with a short mesentery and a curious, reddened, strippled appearance for about three inches along the ileum from the ileo-cecal valve.

with a distinct line of demarcation between this area and the normal bowel, evidently the limit of an intussusception which had relieved itself.

I did an appendectomy and as I drew taut the purse string suture to invert the stump I was surprised to see the ileum begin to invaginate itself into the cecum, right before my eyes. I withdrew the purse string and, as Dr. Seelye has suggested, made the ileum fast to the cecum with a couple of interrupted sutures to prevent a recurrence of the phenomenon.

Dr. James S. Stone, Boston (closing): I was interested to hear what Dr. Richardson said about the infrequency of the recurrences of intussusception. It is extraordinary how infrequently they recur after operation reduction.

There is one thing I want to emphasize—and I am speaking of children and babies—do not at operation do one single unnecessary thing. The risk is too great. It is better to wait and do a second operation later if necessary.

The difficulty of diagnosis within the the first few hours, when the physician is apt to see the child, is very great. Remember that the tumor is then probably far up under the liver; it must go there first, and for this reason at the first visit it is easily overlooked.

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INTUSSUSCEPTION: HERNIOTOMY THROUGH AN OLD COLOSTOMY*

BY JOHN M. GILE, M. D.

The patient in whom the condition under discussion existed was a man fifty-two years of age.

According to his history he had a colostomy performed about eight years before the time that he came to my attention. The operation, he said, was performed by Dr. Daniel Jones of Boston and, as he understood it, was for the relief of ulcerative colitis.

The colostomy opening was on the right side about half way from the caecum to the hepatic flexure. His history said that he had been very ill with much loss of blood from the bowel and great emaciation previous to the colostomy operation. Following the operation he got almost complete relief, gained in flesh, and has for the past five or six years been able to do nearly full time laboring work.

The bowel discharges have been practically all through the colostomy opening although at times some small amount of discharge has come through the rectum. In general, symptoms of the old condition appear to have been practically relieved.

I saw him at the Woodsville Hospital in consultation with Dr. Boynton of Lisbon. About forty-eight hours before seeing him, there had begun to be a protrusion at the seat of colostomy. This was accompanied with moderate pain but at no time extremely severe. Some discharge of gas and a small amount of rather liquid material had continued to come away. When I saw him, the protrusion, which had been gradually increasing, was about eight inches in length. The mucous membrane was so stretched out that it was smooth and shiny, in appearance looking rather more like a peritoneal than a mucous surface, so much so that it was at first a question as to whether it was an eversion of mucous membrane or whether the attachment had given way and the bowel had simply herniated.

On examination under ether, however, it was obvious that the attachment was firm throughout the whole circle of the abdominal ring. Attempt to reduce by pressure from without was futile. An incision was made through the abdominal wall and into the peritoneal cavity. The lower ileum presented in the opening and a little traction on it showed that it pulled on the external protrusion. Continued traction accompanied by pressure from without resulted in easy reduction. It was an intussusception of the ileum through the ileocaecal valve, and the head of the caecum had also been drawn upward through the colostomy. Apparently no adhesion had occurred and the pressure had not been great enough to result in any considerable interference with the circulation of the intussusception.

I have not made sufficiently careful search of the literature to know how many cases, if any, have before been reported. Golding-Bird has reported a case in a four weeks' old child in which intussusception through an open Meckel's diverticulum protruding at the umbilicus occurred.

The obvious impossibility of complete asepsis in such a case made it seem wise to insert drainage. The recovery was uneventful and without infection. The general symptoms of the case were at no time nearly as severe as I have usually seen in cases of internal intussusception. I report the case merely for the purpose of having on record a condition that must at least be very rare.

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Appointments to the staff of the University of Pennsylvania School of Medicine have been made as follows: Dr. George Fetterolf, professor of otolaryngology, succeeding Dr. Burton Alexander Randall, retired; Dr. J. Claxton Gittings, professor of pediatrics, succeeding Dr. J. P. Crozer Griffiths, also retired, and Dr. William C. Stadie, assistant professor of research medicine.—*Science.*

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*Read at the annual meeting, September 26, 1924.

ORIGINAL ARTICLES

JOHN IRVINE HUNTER, 1897-1924

BY HARVEY CUSHING, M.D.

"Whom the gods love die young"

Few visitors to Boston of recent years have left so vivid an impression on our medical community as did the brilliant young anatomist whose untimely death from enteric fever on December tenth in his 27th year has recently been announced in the London papers.

Professor Hunter and his surgical colleague, Dr. N. D. Royle, had come to this country from Australia last October as the guests of the American College of Surgeons. Their visit had been unduly heralded in the lay press, and to their great embarrassment they found a wide-spread misconception of the general applicability of the procedure they were known to advocate and of the results to be expected from it.

As a matter of fact, Hunter had made a noteworthy contribution to our knowledge of the sympathetic nervous system in his attempt to throw light, through experimentation, on a novel method of ameliorating the crippling effects of spastic paraplegia. This work was the outcome of a conception held by Dr. Royle, in regard to the influence upon spasticity of the dual nerve control of the muscles; and for reasons which are plainly apparent, he took his problem, which was purely one relating to function, to the young professor of anatomy in the University of Sydney, his junior by many years.

Their orations which were delivered before the College have just been published in *Surgery, Gynecology and Obstetrics*, and will undoubtedly be the starting point for a renewal of interest on the part of physiologists and others particularly in the subject with which Hunter deals, namely, the genesis of the rigidities of striated muscle.

Professor Hunter was born in Sydney where he received his preliminary education at the Fort Street High School. He was a poor boy who would not have been able to enter the University had he not by his outstanding ability secured one of the University exhibitions, which are given each year in Australia to men who have attained high rank in scholarship in the preparatory schools.

The University of Sydney is a composite of several colleges, just as Oxford and Cambridge are, and Hunter became a "student" at Wesley College during his five-year medical course. His outstanding ability was evident from the first, and after a year of preliminary (premedical) studies, he barely missed the much sought-after Renwick Prize for the highest honours. No prizes are awarded, I believe, at the end of the second year, but at the end of the third year, given over to anatomy and physiology, he received the highest mark, it is said, in anatomy which Professor Wilson had ever given, and thereby won the John Harris Scholarship. At the end of his fourth year he received the Caird Memorial Prize; and also, at the conclusion of the course, the Sandes' Prize for the best surgical essay, one on Abdominal Pain, published in the *Australian Medical Journal*. On receiving his M.B. degree in March 1920, having graduated at the head of his class, he was awarded the University Medal and was generally looked upon as the most brilliant student the school had ever had.

During the last three years of his course, Hunter had been a prosector and demonstrator in Anatomy, and still further to eke out his finances he gave extracurricular student quizzes and held an enviable reputation as a most successful coach. But he was not so engrossed in these studious pursuits as to lose contact with student life in general. He was one of the active members of the University Medical Society and his popularity among his fellows was shown by his being elected to the Board of Governors of "The Union," a graduate and undergraduate club similar to those existing in the English universities.

At the outbreak of the war, Hunter was in his first year at the University and it was characteristic that he immediately enlisted for service in the ranks. However, owing to the defence regulations relating to medical students which were soon passed he was subsequently recalled and ordered to continue with his studies. In his last school year, he served as interne at the Lewisham Hospital, Sydney.

Hunter's interest in anatomy naturally made him the protégé and favourite pupil of Professor James T. Wilson who for long years had been one of the outstanding figures in the Sydney school, and among whose other distinguished pupils are G. Elliot Smith, the Professor of Anatomy, and J. P. Hill, the Professor of Embryology, of University College, London.

When, shortly after Hunter's graduation, Professor Wilson was called to the Chair of Anatomy at the University of Cambridge, he strongly recommended that Hunter in spite of his youth, for he was still in his early twenties, should succeed him. On receiving a temporary appointment as Assistant Professor, Hunter spent the following year partly at University College, London, partly in Copenhagen, devoting himself particularly to the anatomy and physiology of the nervous system. At the expiration of this period, as many will pleasantly recall, he visited a number of the American university schools. He was everywhere recognized as a young man of rare promise and ability, whereas his great modesty and charm of manner endeared him to all.

On his return to Sydney in 1922, he was made Challis Professor of Anatomy, and bid fair to be one of the leaders of the new and younger group of anatomists coming to the fore—men who in true Hunterian fashion do not restrict their studies and interests solely to morphology. In March of this past year he obtained the M.D. degree by thesis and again received the honours medal, the highest award for scholarship in the gift of the University.

His absence from home at the present time, so soon after his professorial appointment, was made possible by special university decree. He had recently married and Mrs. Hunter accompanied him on this trip, which with reluctance had been prolonged owing to urgent invitations for him to present the results of his studies before scientific circles in Canada and England. He had somewhere picked up a typhoid infection and, though feeling out of sorts, enthusiastically kept to his engagements until the disease, assuming a malignant type, quickly carried him off.

The loss which medicine has sustained in the early death of this second John Hunter is incalculable. But as it is, he is one of those few brilliant souls who, at an unusual age, through their personality and genius, manage to leave an indelible mark on their chosen profession—men like Bichat, Laennec, and our own James Jackson the younger.

INDUSTRIAL TUBERCULOSIS

Address Delivered Before Essex South Society, at Boston City Club, January 14, 1925

BY C. E. A. WINSLOW

Professor of Public Health, Yale School of Medicine

The influences of occupation upon the development of tuberculosis are diverse and manifold. There is, for example, the very much neglected effect of posture upon the body. I have been impressed by the figures for the incidence of tuberculosis among clerks and telegraphers and people in similar occupations, which involve bending over a desk or table, with the probability that posture constitutes a real problem, a real industrial hazard in certain trades. There is the effect of industrial fatigue, to be reckoned with. There is the influence of general bad ventilation. There is, however, one form of industrial tuberculosis which constitutes by far the most important, I think, of all these problems. This is the tuberculosis in which the inhalation of industrial dusts has played a predisposing and determining part.

The very minute dust particles, present everywhere in the atmosphere, are rather desirable than otherwise. Certainly they add to the beauty of the world. As you look upon the motes in a sunbeam, it is well to realize the fact that it is due only to these dust particles in the atmosphere that we see the beam of light at all, except when it directly impinges upon the object. You remember the classic experiment of Tyndall who passed a beam of light through a box with an opening at each end and other openings at the sides through which he could see the beam as a brilliant shaft of light. The walls of the box were covered with glycerin and after a few weeks that beam became invisible because the dust particles in the air had settled to the ground and attached themselves to the bottom and sides of the box. In the absence of dust the light left no trace of its passage.

Part of this dust, so universally present in the atmosphere is raised from dry surfaces by the wind like that borne into the city of Pekin from the Gobi desert. Part comes from volcanic eruptions. The dust discharged during the great eruption of Krakatoa remained for several years in the atmosphere and travelled many times around the globe. Another important fraction of aerial dust is of aerial extraterrestrial origin since besides the 20,000,000 meteorites a day which appear as "shooting stars" finer "mineral particles of foreign source are constantly pouring through our atmosphere in the form of a dry and invisible rain."

The number of dust particles which we detect in the examination of air depends very largely upon the method of sampling and analysis. Optical methods which depend on the depth of fog produced by condensation of moisture on the dust particles in a vacuum tube may show billions of particles per cubic foot in ordinarily clear air. For practical purposes it seems probable that the more minute of the motes in the sunbeam are of little practical importance and most methods of examination depend on the collection of dust particles by a water-spray or by impingement in water or on a vaselined plate and on the counting of the particles under microscope,—a procedure which gives us in the main those particles with a diameter between 1 and 10 microns. Counts made with the Palmer water-spray apparatus show less than 10,000 particles per cubic foot (and less than .001 mg. per cubic foot) in the country air after a rain and 23,000 particles outside the fifty-eighth floor of the Woolworth Building; as compared with 118,000 particles per cubic foot in the street outside the Woolworth Building and about the same number (100,000) in ordinary indoor air. In dusty factories on the other hand, the number of dust particles may rise to millions. In an abrasive factory at Niagara Falls the average of nine air samples gave the astounding result of 159,779,000 particles (7.805 mg.) of dust per cubic foot of air.

The influence of atmospheric dust upon health varies even more with the kind than with the gross amount of dust which may be present. As to the effect of organic dusts, we have little exact and conclusive information. Coal dust and cement dust when inhaled in considerable amounts appear quite definitely to favor acute respiratory infections, such as bronchitis and pneumonia, but if anything tend to diminish liability to tuberculosis. Silica dust, on the other hand, has a peculiar and characteristic influence in predisposing the tissues to the invasion of the tubercle bacillus. How far this may be due to the fact that silica particles are less readily eliminated from the lung tissues than are carbon particles, and therefore produce more far-reaching fibrotic changes through their irritating action, how far to some specific influence of silica in attracting or fixing tubercle bacilli in its vicinity, how far to other factors as yet unrecognized, we cannot say. The end result, however, is beyond dispute, as is clearly shown by the vital statistics of sandblasters, granite cutters, polishers, and grinders and other workers exposed to siliceous dusts. The city of Barre, Vt., in the center of the granite cutting district, showed for a ten-year period a tuberculosis death rate more than 250 per cent. that of the state of Vermont as a whole. In a certain axe factory in Connecticut the men employed in grinding and polishing suffered from a tuberculosis mortality over 1180 per cent. that of their fellow employees in the same factory not exposed to silica dust. Seventeen men out of every thousand in this group of grinders and polishers died every year as a direct result of industrial tuberculosis.

It is evident from these facts that the presence of fine particles of silica dust is one of the most deadly characteristics which the atmosphere can possess; and that definite measures for the protection of the worker in dusty trades by the use of enclosed or moist processes, by the installation of local exhaust ventilation or by the provision of masks and respirators is of primary and essential importance.

Of course we cannot assume that the dust hazard has been effectively controlled merely because some one or other of these protective processes has been introduced. In the very axe factory which showed such an appalling death rate they had a wet grinding process, and it is a striking demonstration of the fact that even wet grinding may be an exceedingly hazardous occupation, if conducted on soft wheels of natural sandstone and without adequate control. However, it has been, I think, shown beyond doubt that any one of these methods of protection may be so carried out as to prove an efficient protection for the worker who is exposed.

Thus in the South African mines the use of water sprays eliminated over 90 per cent. of the dust previously present. Greenburg and the writer have found that in a grinding shop an effective exhaust system can keep the dust content of the air down to an average of 200,000 particles per cubic foot, while a reduction in the rate of revolution of the exhaust fan connected with the system caused the count to rise to over 800,000 particles. In a sandblast chamber whose air contained 60,880,000 particles per cubic foot, the use of a respirator cut the number down to 4,549,000 and the use of a helmet with positive interior air supply plus the respirator cut it to 156,000.

The problem of industrial tuberculosis is, I know, a small one as compared with the whole field with which the tuberculosis worker deals; it is a very real problem, in the solution of which we have made as yet very little progress in this country, and which deserves your active interest. If the social organizations interested in tuberculosis work would make it a part of their routine to conduct careful inquiry into the occupational status of their patients, they would be able to refer to the city Departments of Health or to the local office of the State Department of Labor the names of a very great number of factories in which intensive studies in regard to dust should be carried on. It is impossible to judge of the seriousness of a dust hazard by merely looking at the factory air-

That abrasive factory in Niagara Falls which had 160,000,000 particles per cubic foot didn't look any more cloudy than an ordinary work room. Examination of the air and the determination of the actual dust content by analytical methods is the only key to this problem.

What we need is, first of all, the discovery of the factories where dust hazards exist; second, a study of conditions by competent analysts for the determination of the actual dust content of the air, and thirdly, the development of protective measures by the installation of one or the other of the devices of which I have spoken. I have no doubt at all that the city Departments of Health and the State Department of Labor will be able to carry out this work if the social organizations will bring to their notice the specific plants which need their attention.

The first contribution to this phase of industrial hygiene with which I am familiar was a book on metal mining written by Agricola in the year 1556. In the brief passage in which he alludes to this problem, he says:

"Some mines are so dry that they are entirely devoid of water, and this dryness causes the workmen even greater harm for the dust which is stirred and beaten up by digging penetrates into the windpipe and lungs, and produces difficulty in breathing, and the disease which the Greeks call asthma. If the dust has corrosive qualities, it eats away the lungs, and implants consumption in the body; hence in the mines of the Carpathian Mountains women are found who have married seven husbands, all of whom this terrible consumption has carried off to a premature death."

Here, in this statement of nearly four hundred years ago, we have a very interesting and a very complete recognition of the two types of disease due to industrial dust, of the acute condition due to certain foreign dust particles and of the peculiar susceptibility to tuberculosis which follows the inhalation of others.

I doubt very much if there are seven-fold widows under the care of any of the Boston Welfare Organizations as the result of industrial tuberculosis, but I believe that if all those who deal with cases of this disease would seek for a history of occupational hazards and would see that such hazards were followed up and corrected, they would aid materially in the solution of the great problem of the control of tuberculosis.

GASEOUS DISTENSION OF THE STOMACH AND INTESTINES: A PRELIMINARY NOTE*

BY M. A. MCIVER, M.D., E. B. BENEDICT, M.D. AND J. W. CLINE, JR., A.B.

It is generally admitted that gases arising in the intestinal tract by fermentation, and atmospheric air carried to the stomach in swallowing, are modified by interchange with the gases of the bloodstream. Studies were conducted last year on the mechanism of the interchange that takes place through the gastro-intestinal mucosa; on the rate of absorption; and on the equilibrium established by various gases encountered in the intestinal tract. The influence exerted upon the gaseous contents of the intestines by interference with the circulation was also studied. These investigations will be reported in detail later.

In the course of this work the observation was made that air injected into the stomach of the cat is, under certain conditions, passed down by gastric peristalsis, causing distension of the small intestine and the colon. This phenomenon does not happen invariably; and further experiments, especially as regards the nervous mechanism involved and the influence exerted by certain drugs, are in progress to determine the precise factors governing its occurrence.

This observation may prove of interest in explaining some varieties of distension encountered clinically; particularly certain cases of distension occurring post-operatively and in other conditions involving trauma to the peritoneum or its nerve supply. Clinical investigations on this subject and on the allied one of dilatation of the stomach are in progress; and certain data have been collected which confirm the ideas expressed above.

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*From the Laboratories of Physiology of the Harvard Medical School, and the Third Surgical Service, Massachusetts General Hospital.

NASAL ACCESSORY SINUS DISEASE IN CHILDREN*

BY V. J. IRWIN, JR., M.D., SPRINGFIELD, MASS.

An evagination or pouching of the floor or lateral wall of the ethmoidal infundibulum, which becomes the maxillary sinus, is evident about the seventieth day of fetal life.

It is well to remember that the maxillary sinus does not usually come into relationship with the inferior nasal meatus until the eighth year and frequently not until the twelfth. The canine tooth is only very rarely in relation to the antrum (The case of Mr. Highmore's lady friend has given rise to false impressions as to relationship), but the molars are nearly always in close relation to it. The maxillary sinus drains by an ostium or ostia into the infundibulum ethmoidale which is situated under the anterior portion of the middle turbinate body. Accessory ostia are not common before the fifteenth year.

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*Read before the Eastern Hampden Medical Society, October 9, 1924.

As a rule one cannot be sure of the actual frontal sinus until 6 to 12 months after birth. By the 18th to 20th month the sinus has begun its ascent into the vertical plate. It may however confine itself almost if not entirely to the horizontal plate. While direct anatomical continuity between the ostium of the frontal sinus or the naso-frontal duct and the infundibulum ethmoidale is extremely rare, yet 50% of the cases have a relationship which clinically amounts to a continuity.

In the initial growth of the sphenoid sinus into the body of the sphenoid bone it has a marked tendency to develop in the dorsolateral plane, and thus at an early age comes into intimate relationship to the ophthalmic and maxillary nerves. This early development of the sphenoidal sinus renders it readily susceptible to pathologic changes at the early age of two or three years, and it may prove a potent factor in trigeminal neuralgia of childhood.

The optic nerves are in close relationship to the sphenoid and posterior ethmoid cells from the optic commisure to a point near the optic foramina. The vidian nerve is in close relationship to the sphenoid sinus of the same side.

The cavernous sinus and contained structures, i. e., the occulomotor, trochlear, ophthalmic and maxillary nerves are imbedded in the lateral wall. The internal carotid artery and abducens nerve are situated in the ventral wall above the level of the middle turbinate.

The anterior ethmoid cells develop from below the middle nasal concha and the posterior cells develop from above the middle nasal concha.

The agger nasi is usually pneumatized by the most ventral cells. The infundibulum may terminate anteriorly by a single cell or by a group of two or four cells. Some of these infundibular cells grow so far anteriorly as to become frontal cells, others grow into the agger nasi, processus uncinatus, etc.

The bullar cells early hollow out the bulla ethmoidalis and frequently extend into the supraorbital plate of the frontal bone and into the infraorbital plate of the superior maxilla.

During childhood the posterior cells gradually pneumatize the superior concha and extend frequently into the supraorbital plate of the frontal bone and the infraorbital plate of the superior maxilla, also into the body of the sphenoid. The anterior cells drain into the middle meatus in the region of the infundibulum. The posterior group drain above the middle turbinate into the olfactory fissure.

Thus we have two series of sinuses both anatomically and topographically. First, those emptying into the middle meatus including the frontal, antrum, the anterior, middle and agger nasi cells; second, those draining into the olfactory fissure including the posterior ethmoid and sphenoid.

Of the predisposing causes for the development of sinus disease climate is probably the most important single factor. Our moist changeable winters and springs are ideal for the production, and greatly interfere with the cure of this condition.

Diet is certainly an important predisposing factor. Dr. Amy Daniels, the Research Dietitian of the Department of Pediatrics of the University of Iowa, expresses herself as follows: "We have observed that animals fed diets quite lacking or very low in the so-called fat soluble vitamine (vitamine A) are subject to paranasal sinus infection, infection of the middle ear, a condition which precedes the eye manifestations, xerophthalmia-characteristic of animals fed diets low in this vitamin."

Dr. George Smith, the assistant professor of Bacteriology in the Yale Medical School, working with Dr. Isobel Wason, has come to the conclusion that deficiently fed animals exhibit definite evidence of a disturbance in antibody formation.

Of the local predisposing factors we may take, first, any condition which causes interference with normal sinus drainage and ventilation; second, any condition causing stasis or congestion in the nasal or sinus mucous membranes; third, an undue virulence or number of bacteria in and about the nose.

Under the first caption we have adenoids, septic deviation, foreign bodies, etc.

Under the second heading we have poor hygiene, poor ventilation, irritation, gases and vapors, ill-advised home and drug store "remedies" and "cures."

In the third group are tonsillitis, influenza, "colds," acute exanthemata, bronchitis, pneumonia, otitis media, hay fever, etc.

Direct Etiology:

It should be borne in mind that the sinuses in health are able to expel or destroy germs and hence are sterile.

There are a number of ways in which microorganisms gain a foothold in the sinus mucous membrane:

1. Through primary invasion by an overwhelming force of bacteria.
2. Through traumatism or foreign bodies.
3. Exposure to cold and lowered body resistance.
4. Through extension of inflammation from neighboring tissues or another sinus.

This leads us to what is frequently the most difficult part of our problem—the diagnosis. In order of their importance in making a diagnosis I should place:

1. Clinical examination.
2. X-ray.
3. History.
4. Symptoms.
5. Transillumination.

For the purpose of studying the best method of aiding the general practitioner to recognize sinus disease I have selected from among those cases which have come to my office within two years, the records of forty children. The method of selection was simple. All those cases in which the diagnosis was not positive were eliminated. Also all cases referred by physicians were excluded. The symptoms which brought them were as follows:

Obstructed nose or mouth breathing	12
Nasal discharge or bad odor to breath	6
Some form of squint	4
Defective vision	3
Headache	3
Discharging ear	3
Deafness	2
Swelling of the neck	2
Sore throat	1
Bronchitis of four months' duration	2
Catching cold easily	1
Nose bleed	1
Total	40

This is hardly what one who has consulted the text books would expect to find, but brings out clues to be sought for in history taking. Of these patients two had had nasal operations, fourteen had had tonsil and adenoid operations from one to four times. In none of these cases was the possibility of the existence of sinus disease brought to the attention of the patient's family by a physician, although all but one had been under a physician's care for variable periods of time.

No one can be successful in diagnosing sinus disease who has not the infinite capacity for taking pains. You have all heard statements similar to these, "Suppuration and inflammation of the nasal accessory sinuses may be so difficult of recognition as to be almost insuperable" (Heitger). "The rhinologist cannot say with absolute certainty that a person has no sinus disease" (Van der Hoeve). This part of the investigation, when the occasion for his services arises, must be done by the rhinologist.

However, there are several points which leads the physician to suspect sinusitis, some of them almost pathognomonic:

1. Cessation of pain in head with onset of free nasal discharge.
2. Marginal blepharitis with corneal ulcers, excoriated upper lip and nasal discharge.
3. Oedema of eye lid from vascular pressure.
4. Localized headache.
    a. Maxillary sinus—over antrum, over mastoid or superciliary ridge.
    b. Frontal—forehead or, in more acute stage, the superciliary ridge.
    c. Ethmoid—coronal or parietal.
    d. Sphenoid—coronal, parietal or occipital.
5. Tenderness over the sinuses.
6. Purulent secretions from nose.
7. Clear jelly-like masses from nose either anteriorly or posteriorly.
8. Glands of the neck.
9. Polyps, while not common in children, do occur.
10. Atrophic rhinitis.
11. Certain diseases call for sinus investigation particularly:
    a. Erysipelas.
    b. Asthma.
    c. Lung abscess.
    d. Bronchiectasis.
    e. Arthritis, acute or chronic.
    f. Cardiac lesions.
    g. Nephritis.
    h. Neuritis.
    i. Corneal ulcer.
    j. Marginal blepharitis.
    k. Deafness.

The X-ray examination must be made by the skilled roentgenologist willing to take the time and trouble to do it well.

The treatment lies almost entirely within the domain of the family physician. The earlier the case is recognized the more it comes within the province of the general practitioner for care. The rhinologist being only required for an occasional examination and to lend his skill in the neglected cases.

First and foremost, the source of the infection, if present, must be removed and then proper hygiene and diet introduced. The diet should consist of butter or cream, milk, eggs, succulent vegetables, fruits, especially orange juice, and not too much bread, potato and cereal. Cod liver oil for its fat vitamin should be considered part of the food. A diet however carefully selected does little good if not taken.

The supervision of clothing especially footwear, sufficient sleep, proper ventilation of living and sleeping rooms are of hardly less importance. When considering the hygienic conditions do not neglect the investigation of a possible source of re-infection from another person.

The local treatment consists of instillation of 25% solargentum or argyrol into the nostrils to be followed by a hot alkaline nasal irrigation. given with the child's face downward and douche bag raised just high enough to cause the fluid to flow gently through the nose. The bag never to be more than a foot above the nose. After completion of the douche, a few drops of mercurochrome or acroviolet may be instilled to advantage.

For older children, I prepare a tampon as thick as will be admitted into the nose and as long as the lowest turbinate, saturate it with 25% solargentum (argyrol) and place it either above or below the middle turbinate according to the group of cells involved. This tamponade is allowed to remain one hour, to be followed by suction.

The suction device need not be the elaborate apparatus used by the specialist. A water vacuum pump of the Brawley type can be purchased for five or six dollars. This requires running water. A satisfactory suction may be readily obtained by attaching three or four feet of rubber tubing to an olive nasal tip, which is to be inserted in the nostril of outflow while the douche is being given. The technique is simple; the flow is established, the outlet tube inserted, the flow cut off, the patient repeats the letter "K."

This form of treatment the family physician can and should carry out. The surgical treatment must of necessity lie in the sphere of the rhinologist and hence is not discussed in this paper.

Leaving the matter of nasal obstruction and mouth breathing in the hands of school examiners, more especially to school nurses with a card sent to the parents that Johnnie must have his adenoids and tonsils removed, is surely a potent factor in causing nasal accessory sinus disease to be neglected. With due coaching from teacher and nurse the little patient arrives at the hospital and his mother is instructed that he must be examined by the attending specialist before admission. After an examination consisting of invariably discovering the need of "T & A" and collection of an examination fee, the patient is admitted to the hospital, has his operation, and leaves the hospital in 24 hours "cured."

There is not a single member of this association who treats diseases in children who has not a number of cases of sinus disease coming under his observation. A little bit of diligence on your part now will save many of these children from having serious nasal operations later in life, much suffering, much deafness, arthritis, neuritis, cardio-vascular renal disease, asthma, hay fever, etc.

If the patient combats your desire for investigation saying it is only a cold, please remember he is telling you what you or some other physician has taught him.

TAPPING THE ABDOMEN

BY FRANCIS W. PALFREY, M.D., BOSTON

Paracentesis of the abdomen for ascites is an operation of such apparent simplicity that the physician performs it, as occasion arises, with well justified confidence that it will be accomplished with relief and without danger. It is seldom dignified by descriptions of the technique. At the same time, very commonly the evacuation of the abdomen is less complete than has been expected. Also, particularly in patients who are seriously weakened by their disease, there are precautions which are not always observed that are important in lessening the discomfort and the fatigue of the procedure. A few words upon this humble subject may, therefore, be not wholly without value.

The operation is usually done by merely inserting a straight trocar and canula into the abdomen low down in the median line (the bladder having first been emptied), either under novocain or ethyl chloride anesthesia, or by a sudden thrust without anesthesia. The patient sits in a chair with a pail before him until the flow of fluid has ceased, after which a dressing is applied and he is put back to bed. The discomfort of the previous distention has been abolished.

There are certain ways, however, in which the result sometimes falls short of the ideal. Of these the following deserve mention.

A. The insertion of the trocar is not always made painless; the patient may even be caused to dread a repetition of the performance.

B. The flow very often stops before the abdomen is empty.

C. The fatigue of sitting in the chair may be irksome, or in heart cases even dangerous.

D. The wound in many instances continues to leak for days, causing an unpleasant wetness which is not compensated for by any important retardation of the re-accumulation.

Against these imperfections in the procedure as it concerns the patient during and immediately after its performance, the following remedies are suggested.

To anesthetize the abdominal wall, procain (novocain) 0.5% should be used. Ethyl chloride is far less effectual. Moreover, not only the skin but also the deeper tissues should be anesthetized. After the skin has been infiltrated, the injecting needle should be passed gradually deeper into the subcutaneous tissue, and then, through the linea alba, down to the peritoneum.

After the novocain is injected, the mistake should not be made of inserting the trocar immediately. Time should be allowed for the solution to take effect. It is the author's practice to wait three full minutes by the clock before making the actual puncture. If this is done, there is no pain and very little sensation. Later repetitions of the process do not seem to the patient affairs of any great moment.

Interruptions of the flow occur from two chief causes. Of these the one which interferes most with an even approximately satisfactory result, since it may act almost at once before any considerable amount of fluid has escaped, is stoppage of the tip of the canula by a coil of intestine or by the omentum. When this happens something can be done by moving the instrument, but the obstruction often recurs obstinately.

The most effectual manner of dealing with this difficulty is to insert a fine round-tipped probe through the canula so as to push back the obstructing body. The flow will then continue while this remains in place. Care must, of course, be taken to avoid losing the probe in the abdomen.

The second form of interruption, or rather the premature diminution and final cessation of the discharge of fluid which occurs later but still before the abdomen is at all thoroughly drained, comes not from obstruction but from lack of hydraulic pressure. The flow begins with a rush because of the abnormal tension within the abdomen. Soon, however, this tension is released and the abdominal wall becomes lax and flabby. From then on the flow is continued only by gravity. It proceeds with constantly diminishing force until the surface of the fluid is at the level of the puncture, and then it ceases. But even after it has caused the pelvis and the lower abdomen are still a reservoir filled to the brim with fluid. Since it is not practicable at this stage to have the patient lie upon his abdomen, there is no force of gravity to produce further evacuation. The lower the puncture is made the later this point will be reached. A little can be accomplished by pressing upon the abdominal wall; but a considerable residue will always remain.

Aspiration by siphonage is the solution of this difficulty. The author uses a trocar* which can be inserted 3½ inches from the surface. By inserting this to its full length, at the same time directing the point downward as well as backward and pressing slightly upon the abdominal wall as it becomes relaxed, the inlet of the canula can be made to lie behind the bladder in the pelvis. The canula* used is provided with a side-opening to which a rubber tube is attached. This tube, led downward toward the floor, provides a gentle aspiration by siphonage which will continue to draw fluid through a properly placed canula until the abdomen is almost dry.

In practice, the sharp-pointed trocar is used only to penetrate the abdominal wall. The trocar is then retracted, and the canula alone is employed for the deeper insertion. This must be done gently. If any solid body within the abdomen is encountered, the attempt should be made to work the instrument around it or below it without using force. The author has had the tip of his canula ground to a rounded edge to lessen the danger of its causing injury.

If any obstruction to the flow occurs, the trocar is removed entirely and is replaced by a rubber stopper through which passes a probe adjusted so as to extend just beyond the tip of the canula. It is well to make this replacement as routine while the flow still continues under internal pressure. If the change has to be made later, the siphon tube should be pinched during the process so that the suction will not be lost.

When the patient's condition is such that moving him from the bed to a chair is to be avoided, this method makes it possible to relieve ascites without any such disturbance. The patient is merely supported in a high sitting position in bed on a back rest. The fluid is conducted by the tube to a pail beside the bed. If a little absorbent cotton is held in place below the needle the whole process can be completed without even wetting the sheets. All can be accomplished in seriously ill patients almost without their realizing that anything of importance is going on.

Leaking of the wound after the canula is withdrawn results chiefly from a far from complete emptying of the abdomen. It is more apt to happen, also, the larger the caliber of the instrument used. It can be stopped or prevented, usually, by a silkworm gut stitch through the skin and subcutaneous tissue, drawn tight so as to compress the wound laterally. If a large trocar has been used, if there is reason to expect unusually rapid reaccumulation, or if for any reason thorough evacuation has not been effected, it may be advisable to tie such a stitch while the procain anesthesia is still present. Ordinarily, however, this should be unnecessary, if the technique described above has been followed.

Details of sterilization, asepsis, etc. are omitted here on the ground that they are, in the present day, self-evident.

No claim to originality is made for this method since it is probable that the author is not alone in employing it. This article is written only in the belief that there are not a few physicians who, because of infrequent experience in tapping the abdomen, have not perfected themselves in the procedure. To such it is hoped that these suggestions may be of assistance.

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WATERTOWN, Mass., plans to erect a health building as a memorial to its men who served in the world war. This building will house the local Red Cross Chapter, and provide space for tuberculosis, child welfare, dental and other clinics.—*Bulletin U. S. Dept. of Labor.*

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*Kny-Scherer Catalog No. B/10492, "Gall-bladder Trocar." Either size 12 or size 15 can be used, the smaller (12) being generally preferable. Obtained from the E. F. Mahady Company, Boston.

REMARKS TO THE YOUNG MAN IN OBSTETRICS AND GYNECOLOGY

BY HERBERT THOMS, M.D., F.A.C.S., NEW HAVEN, CONN.

YOU will quite agree with me that there are a number of very pertinent things that the young worker in the field of Obstetrics and Gynecology should know. I have in mind, however, something that is usually overlooked by the younger men of the profession and this is the study of the lives and achievements of those men who made possible our science as we know it today. In the youthful processes of evaluation such study is apt to be relegated to an expectant period of old age and to be associated with the anemic bibliophile, which is occasionally seen in the medical library poring over some musty volume of by gone days. And yet the fact is that all who have taken time to look behind the curtain of the past have found therein not only truths never before comprehended but an inspiration which at times seems almost transcendental. "We have a debt," wrote Emerson, "to every great heart, to every fine genius." Our approach to these men is in a dual role of both debtor and creditor, for we soon find that we can draw out of their past, veritable life itself.

In a discoursive sort of way I purpose to speak of the great value of this kind of reading, if possible to stimulate an interest in it, and to point out a few books which will serve at least as an adequate point of embarkation. One of the best views that an American can secure of this country is to look at it from Europe; and so with our science, a survey made from excursions into the past gives a perspective that may be obtained in no other way. I have chosen for discussion nine books, every one of which contains values immeasurable to the student who wishes to properly comprehend the modern field of Obstetrics and Gynecology. This may seem like a five-foot-shelf method of stimulating interest, but the fact remains that he who reads while keeping the pace today is attracted by things presented in a concrete form. These books have a further value in being readily accessible.

As obstetricians and gynecologists we have a very definite claim on the great French surgeon Ambroise Pare, for it was he who first accurately described podalic version. In his "Life and Times" Francis Packard has not only given us an excellent translation of his best writings but an extraordinary picture of the France of Montaigne, Rabelais and Pare's patient and friend, Catherine de Medici. Pare's description of the condition of surgery and the military life of the sixteenth century stands unrivalled. The force of his character and the charm of his personality are soon manifest as we accompany him on campaigns where he ofttimes does his patient "the office of physician, surgeon, apothecary and cook." Ambroise Pare was one of the truly great benefactors of the human race. Romance, adventure and real achievement filled the life of the man who modestly recorded "I dressed him and God healed him."

What contrast is found in this story of life on the battlefields of France and that of the lives of those two famous sons of a small Scotch farmer, William and John Hunter. It is of course to William Hunter that we as obstetricians and gynecologists are chiefly indebted but he cannot be properly considered without his equally distinguished brother. This task has been rendered easy by the splendid work that George Mather has given us in his "Two Great Scotsmen." William Hunter was preeminent in midwifery. For many years he was acknowledged as the leading obstetrician of London. Baillie says he was singularly fitted for this practice "by the delicacy of his manners, and a very quick perception of the caprices of the world." His immortality is assured by his great work on obstetrical anatomy which took him thirty years to finish. His biographer says not only was William Hunter "a most thorough and original anatomist, he was the most scientific man that ever practised as an accoucheur,—midwifery is as much indebted to him as surgery is to his brother." We measure his greatness not only by his individual contributions but to the immeasurable influence of his writing and teaching in stimulating others. This role he himself realized in some degree when he wrote, "To acquire knowledge, and to communicate it to others, has been the pleasure, the business and the ambition of my life."

Up to the present day no obstetrical author, ancient or modern, has contributed so many principles of obstetrical science as did William Smellie, a fellow countryman and a contemporary of the Hunters. Indeed, a practical study of his works today convinces us that certain procedures such as podalic version, breech extraction and forceps application were performed by him with as much skill and dexterity as obtains today. His biographer, John Glaister, has given us a fine portrait of his life and environment. A review of his contributions reveals his sheer genius for obstetrics. In reading his life one is deeply impressed with the true devotion that he gave to his art. A contemporary writer speaks of Smellie as being "an enthusiast in his profession, man-midwifery was the idol of his heart, he believed in his forceps as firmly as he did in his Bible." Not the least interesting to the student are the accounts of attacks made upon Smellie as an advocate of man-midwifery and the use of the forceps. It is interesting to note that the ablest attack of this kind came from John Burton of York, who under the designation of Dr. Slop has been immortalized by the novelist Sterne in Tristram Shandy. William Smellie was one of the greatest obstetricians of all time. Combined with a remarkable genius was his noble character and the obstetrical student who does not know him has missed much indeed.

With the exception of Marion Sims, no physician on this continent has contributed such influences toward the development of surgical science as did Ephraim McDowell. Indeed, the modern science of Gynecology may be said to have been founded by these two men. McDowell is often called the Father of Ovariotomy, and it is this operation which introduced into the field of surgery, operations within the abdomen.

Mary Young Ridenbaugh, in her biography, has given to us, beside a remarkable picture of pioneer medical life in Kentucky, a detailed account of the first case of ovariotomy and a review of the history of ovariotomy in Europe.

McDowell was more than a good operator, he possessed all those higher qualifications which make the profession of medicine a noble calling. The mere mechanical surgeon was abhorrent to him and in speaking of his operation he said, "It is my most ardent wish that this operation may remain to the mechanical surgeon forever incomprehensible." Although a backwoods surgeon, Ephraim McDowell was a man of genius and a benefactor of mankind. When we think of what he was, what he did, and where he did it, our admiration for his courage and skill is unbounded. In the language of our Connecticut poet. Fitz Greene Halleck, his was "one of the few, the immortal names, that were not born to die."

"In the history of Midwifery there is a dark page, and it is headed by Semmelweiss." These words begin the extraordinary biography of the man whose doctrine concerning puerperal fever marks the greatest epoch in the history of obstetrics. The page is dark indeed; no physician ever lived whose services to mankind were greater and who suffered more from contemporary ingratitude and stupidity. "In the whole history of medicine," writes Sinclair, "we find a clear record of only two discoveries of the highest importance in producing direct and immediate blessings to the human race by the saving of life and the prevention of suffering. These were the discoveries of Edward Jenner and Ignatz Phillip Semmelweiss." The pathos and tragedy of the Semmelweiss story is extreme. He was a true medical martyr. "His Life and Doctrine," by Sir William Sinclair, is not only an admirable biography but a splendid historical account of the etiology of puerperal fever.

James Young Simpson has been described as "The Man who gave new life to the Obstetric art and presided at the birth of Gynecology." In his biography by Laing Gordon we have the story of his remarkable life, an account of his discovery of chloroform anaesthesia and a fascinating picture of the foremost medical center of that day, Edinburgh. Like many other great men of science, Simpson's early life is the story of the struggles of a poor boy. How this Bathgate baker's son rose to the highest attainable position in his field of activity is romance indeed. Under his impressive bust in Westminster Abbey are inscribed these words: "To whose Genius and Benevolence the World owes the blessings derived from the use of Chloroform for the relief of suffering, LAUS DEO."

If there is one book out of the whole realm of medical biography, the reading of which should be obligatory before granting the medical degree, without question I should name Vallery-Radot's Life of Louis Pasteur. I have included it here not only because of its superiority as a book of inspiration but also because of the intimate part Pasteur played in the discovery of the etiology of puerperal fever. As the years go on his great genius becomes more manifest and the simplicity and gentle kindliness of his life more inspiring. His was a religion of peace, love and devotion. "If your resolution is firm," he wrote, "your task, be it what it may, is already begun; you have but to walk forward, it will achieve itself." W. W. Keen pays this tribute, "I do not hesitate to say that for the physical welfare of the human race, Pasteur was the Supreme Benefactor." As we turn the pages of this remarkable book we unfold one of the most extraordinary stories of biographical literature, event after event, discovery after discovery, reveal the magnitude of his genius. Pasteur knew well the value of reading biography and he was unconscious of any application to himself when he wrote, "From the life of men whose passage is marked by a trace of durable light, let us piously gather up every word, every incident likely to make known the incentives of their great soul, for the education of posterity."

Under the title of "The Story of My Life," J. Marion Sims has written a narrative that every American physician should read. Again we have demonstrated to us that America is a land of great opportunity. Sims' history as a benefactor of the human race begins as a backwoods practitioner and leads to his authoritative recognition as the foremost clinical surgeon of his day. His recognition and reception in Europe unostentatiously narrated by him is full of dramatic interest. Beside his own extraordinary exploits in surgery he gives us splendid sidelights on the great men of Europe of that day. The development of his cure for vesico-vaginal fistula as told by him is a fine lesson to those who think that today the paths of achievement are beset with difficulties. Beside his many contributions to medical literature the fame of

Marion Sims rests on his development of a surgical cure for vesico-vaginal fistula, his invention of the speculum bearing his name which revolutionized the methods of gynecological diagnosis and the established fact that he was the founder and organizer of the Woman's Hospital of the State of New York, the first institution ever dedicated exclusively to the cure of diseases of women.

Marion Sims was followed in his work at the Woman's Hospital by Thomas A. Emmet. In his "Incidents of My Life," published in 1911, we have a noteworthy picture of a man who was known as surgeon, teacher, medical author, literateur, and patriot. As a surgeon he possessed great operative skill and we owe to him the foundation for our methods in cervical and perineal repair. Emmet also taught us our first accurate knowledge regarding the cause of vesico-vaginal fistula. As a teacher he has left us a faithful record of his clinical work in his Principles and Practice of Gynecology. It was only natural that an Emmet should be interested in Ireland and his two books relating to this question demonstrate his loyalty. His reminiscence of life in Virginia before the Civil War is delightful and his picture of student days in Philadelphia during 1845-50 is most interesting. This autobiography is not only the story of a man of unusual attainments but an extraordinary portrayal of both medical and social life in New York City during the Victorian period. "Incidents of My Life," by Thomas Addis Emmet, is one of the best written medical autobiographies that it has been my privilege to read.

Nearly four hundred years ago the great French essayist Montaigne spoke of his books as the "best viaticum I have yet found out for this human journey." Books are the only means by which we may learn the true thoughts and the real characters of the masters of our science. When we consider that it is only in comparatively recent years that obstetrics was considered a legitimate branch of medicine or that gynecology existed as such, we gain some idea of the courage of our medical ancestors and the true devotion they gave their art. Medical Science may well be proud of her Obstetricians and Gynecologists. Not only have they raised their own field to its present state of development but their contributions to surgery, anatomy, anaesthesia and other branches of the healing art have been of greatest importance. The Sage of Concord expressed true feeling when he wrote, "We sympathize in the great moments of history, in the great discoveries, the great resistances, the great prosperities of men, —because there law was enacted, the sea was searched, the land was found, or the blow was struck FOR US, as we ourselves in that place would have done or applauded."

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BOOK REVIEWS

Lord Lister. By Sir Rickman John Godlee, Bt., K.C., V.O., M.S., F.R.C.S. Third edition, revised. Pp. 685. Oxford, at the Clarendon Press. 1924.

This third edition of Sir Rickman Godlee's fascinating book "Lord Lister" contains an interesting postscript dealing with the modern treatment of war wounds, the material being gathered from the experience of many surgeons in the allied armies.

It is impossible in a short review to do justice to the marvel and charm of this volume, and it is difficult to pick out parts or passages which are more interesting than others, as Sir Rickman skilfully unfolds the incidents in the life and depelopment of the founder of antiseptic surgery. The book might be called the surgical Bible.

The coldness of the London surgeons toward Lister's great discovery, their sluggishness in adopting the new methods and criticism of them on account of poor results, which were due to their own imperfections in following out Lister's methods; the correspondence and friendship with Pasteur, and the long and sometimes discouraging work on experimental catgut are especially high lights in the book.

Lister's introduction of the rubber drainage tube and his use of it in an operation upon Queen Victoria is interestingly described; the book being full of such descriptions concerning particular operations where the new methods were tried with almost unvarying success.

What Lord Lister did for surgery and the world is known to all thinking people, laymen as well as physicians; how he did it, and all that led up to his epoch-making experiments, the character of the great man, his kindliness, gentleness and deep religious sense, can only be known from a perusal of Rickman's volume.

Every surgeon should own this book; he will read it again and again, and each time be loth to put it down.

For the layman interested in medical history, no more valuable book has been published, for all the chief factors which led to modern medical and surgical treatment are within its pages.

Physio-Therapy in General Practice and for the Use of Masseuses. By E. Bellis Clayton, M.B., B.Ch. (Cantab.). New York: William Wood & Co. 1924.

This book by E. Bellis Clayton, M.B., B.Ch., Director of the Physio-Therapeutic Department of King's College Hospital, London, is written, according to the author's preface, "for the medical practitioner and the masseuse." The difficulty of such an attempt is evident because of the inherent differences of the training in these two professions. The general practitioner will find a brief outline of the commonly accepted causes of most of the conditions for the relief of which the aid of the physio-therapeutist is sought. The masseuse will find useful warning of the pitfalls which lie in her path in administering physiotherapy, and directions as to the standard methods of massage, active and passive exercises, and electrical treatment. These directions are given under disease headings, and an illustrated review of Klapp's crawling exercises concludes the book of 175 pages.

Case Records of the Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY
RICHARD C. CABOT, M.D., AND HUGH CABOT, M.D.
F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 11051

MEDICAL DEPARTMENT

An American steel worker of fifty-five entered July 7 for relief of abdominal pain.

F. H. Good.

P. H. His general health had always been good. He had measles and diphtheria in childhood, grippe some years ago.

P. I. For two months he had had gastric pain at irregular intervals nearly every day, not relieved by soda or food. July 4 the pain became worse and he vomited a few times. For the next two days the pain continued and he vomited practically everything taken. The night before admission the pain subsided, but he vomited six times. He had had a few small bowel movements with the aid of enemas. His chief complaints at entrance were nausea and intense thirst.

P. E. Obese. Sclerae injected. Teeth poor. Pyorrhea present. *Lungs* and *heart* normal. *B. P.* 110/60. *Abdomen* distended, soft, no masses or tenderness. Spasm present. *Rectal examination, genitals, extremities,* and *pupils* normal. *Reflexes.* Knee-jerks not obtained.

T. 98.1°-103.2°. *P.* 86-123. *R.* 18-28. Amount of *urine* not recorded, sp. gr. 1.012-1.038, the slightest possible trace of albumin at one of two examinations, 40-50 leucocytes and 40-50 red blood corpuscles at one of two. *Non-protein nitrogen* 32 mgm. *Renal function* 20%? (off color; 150 c.c. on time.) *Blood* not recorded except leucocytes 4,400-9,800. *Wassermann* negative. *Vomitus.* A large amount, liquid, "coffee." No blood. Guaiac negative.

A stomach wash was done when the patient first came into the ward. After this he did not vomit. The visiting surgeon thought it best not to operate because the patient was apparently getting something through. That evening there seemed to be less distension. The next morning the abdomen was soft, the patient looked somewhat better, and gas was passing by rectum. An enema gave fecal results and much gas. During the day the fluid intake was very good. There was no vomiting.

That evening there was a definite change for the worse. The patient was stuporous, the abdomen was distended, and no gas passed by rectum. The morning of July 9 he was in coma. The abdomen was much distended. An enema gave no result. That night he died.

DISCUSSION

BY DR. RICHARD C. CABOT

NOTES ON THE HISTORY

A man of fifty-five entering the hospital for abdominal pain is to be suspected of malignant disease either in the stomach or intestine. That this pain has been what the history calls gastric and has occurred daily with increasing severity makes us fear still more that gastric cancer may be its cause. That the pain is associated with vomiting and that this increases in frequency strengthens the belief in gastric cancer.

Intense thirst may well be due to a pyloric obstruction, since water is not absorbed in the stomach.

NOTES ON THE PHYSICAL EXAMINATION

It is surprising, however, when one begins to read the physical examination to find that the patient is obese and the abdomen negative.

In the rest of the physical examination there is nothing distinctive except the description of the vomitus as "coffee-colored" and the distension of the abdomen without tenderness,—a fact which suggests intestinal rather than gastric obstruction.

The kidneys are probably negative despite the finding of an unusually large number of leucocytes and red cells in the urinary sediment.

The absence of knee-jerks is unlikely to be of significance, as there are no other findings to link with it.

On the whole then the physical examination presents two ill-defined possibilities, gastric cancer and intestinal cancer. I will return to the discussion of these after considering the remainder of the case.

In the subsequent record, during the twelve days of his stay in the hospital it appears that the diagnosis of intestinal obstruction was certainly entertained and probably prevalent. Distension continues and increases, although apparently the enema gives a good result. Evidently the pylorus is not blocked, since the fluid intake is good, and at times there is little evidence of obstruction in any part of the gastro-intestinal tract.

Is it possible that there is a perforation of the stomach or intestine with peritonitis? Certainly there is no sudden onset of pain such as one usually hears of in perforation and peritonitis. On the other hand, unless there is some peritonitis it is hard to account for so sudden a death in an obese patient.

DIFFERENTIAL DIAGNOSIS

On the whole intestinal obstruction low down, probably due to cancer, seems more probable than any other diagnosis.

For gastric cancer the history is rather short, though this does not by any means exclude that possibility. The attending physician can hardly have thought gastric cancer possible or he would have had an X-ray examination. Nevertheless I do not see how this diagnosis can be excluded, though intestinal cancer seems to me more probable.

Other causes of severe abdominal pain, such as the gastric crises of tabes, such as plumbism, pancreatitis, appendicitis, tuberculous peritonitis, seem to me improbable.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Intestinal obstruction.
Carcinoma of the bowel.

DR. RICHARD C. CABOT'S DIAGNOSIS

Intestinal obstruction.
Malignant disease of the intestine.

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesions*

Carcinoma of the transverse colon with obstruction.
Marked distension of the colon above the new growth and of the small intestine and stomach.

2. *Secondary or terminal lesions*

Slight fibrinous peritonitis.

3. *Historical landmarks*

Slight hypertrophy and dilatation of the heart.
Scoliosis.
Slight chronic pleuritis.

Dr. Richardson: Head not examined.

The abdomen was distended, the wall rather tense.

The esophagus, stomach and pylorus were negative except that the stomach was large and contained much dirty brownish opaque fluid material.

The small intestine was markedly distended and contained a great amount of dirty brownish opaque fluid material. The mucosa was negative. The peritoneal surface in places was injected and coated with small patches of dirty reddish fibrinous material—slight peritonitis. The large intestine was greatly distended up to the middle region of the transverse colon. This portion contained a great amount of fluid material like that in the small intestine and stomach. The colon beyond the middle of the transverse portion was not distended and was rather empty. The mucosa was negative. In the region of its middle portion the transverse colon along a length of 4½ cm. was completely encircled by a constricting mass of new growth tissue. The mucosal surface of the new growth was irregular, somewhat cauliflower-like, and the wall beneath it was thickened up to 1½ cm. and infiltrated with new-growth-like tissue. This new growth tissue extended for a short distance into the mesentery. The new growth practically completely occluded the colon.

Pleural adhesions: Right, none. Left, a small band. The lungs were negative except for moderate edema.

The heart weighed 510 grams,—slightly enlarged for him. He was very large and stout. On the right myocardium there was a thick layer of epicardial fat and some fatty infiltration of the muscle. The heart was slightly dilated. The valves and coronaries were negative. The aorta and great branches were extraordinarily free from sclerosis.

The pancreas showed a moderate amount of fatty infiltration.

There was slight lateral curvature to the right in the thoracic region and a slight compensatory to the left in the lumbar region.

CASE 11052

Medical Department

An Armenian housewife of forty-two was brought to the Emergency Ward September 17. The complaint was edema and dyspnea of four months' duration. The history was obtained from her husband, who spoke very little English. He had been married to her only six months and was not very familiar with her history.

F. H. She had been married two or three times and had three living children.

P. H. No known illnesses.

P. I. Six months before admission she was obese and was dyspneic on the stairs. Four months before admission she began to have edema of the feet and lower legs. Following the application of leeches to the feet there was sudden swelling of the thighs. Two months before admission she found her housework too difficult. Medicine was given by mouth. A month before admission she found walking difficult. Two weeks later she took to her bed with generalized edema, cough, dyspnea and orthopnea. For the past three nights she had been unable to sleep because of discomfort.

P. E. An obese woman *in extremis*, rapidly, strugglingly dyspneic, with tracheal râles. Examination difficult and restricted on account of the patient's condition. Very marked purple cyanosis, especially of the face, neck and arms. Incoherent. Many teeth carious and many missing. Considerable pyorrhea. Skin hot and moist. Breath not uremic. Eyes, marked arcus senilis. *Heart.* Apex impulse in the fifth space. Enlargement to the left. Action very rapid. No other abnormalities. *B. P.* 180/60. *Lungs.* Loud coarse bubbling râles throughout. Bronchial breathing and increased voice sounds in the right axilla. At the right base breath sounds behind the râles seemed bronchovesicular. *Abdomen* held rather rigid. Extremely obese. Liver edge not palpated. No considerable amount of free fluid in the abdomen. *Genitals* normal. *Extremities.* Hot and indurated area on left thigh. Massive edema of both lower legs. *Pupils.* Slight reactions to light and distance, otherwise normal. *Reflexes* normal.

T. 102.4°-103°. *P.* 138-153. *R.* 32-40. *Urine* and *blood* not recorded. *Non-protein nitrogen* 28 mgm. *Wassermann* negative.

Orders. Fluids, high caloric, (orange juice, etc.). Morphia gr. ¼ s.c. and gr. 1/6 every three hours p.r.n. to keep quiet. Atropin gr. 1/120 s.c. Digifolin gr. ix intramuscularly at once and gr. iii every three hours until vomiting or until gr. xxx has been given. Atropin sulphate gr. 1/100 s.c.

After some difficulty on account of poor veins 350 c.c. of blood was withdrawn. In the evening she was quieter, with less cyanosis and dyspnea. The pulse was good but rapid. At midnight pulmonary edema was again marked. Early the next morning she died.

DISCUSSION

BY DR. MAURICE FREMONT-SMITH

NOTES ON THE HISTORY

Edema and dyspnea of four months' duration in a woman of forty-two of course suggests heart first of all. Progressive dyspnea and edema are marks of cardiac failure. Why should she have gone to the age of forty-two and then developed within six months acute cardiac failure resulting in her death? It is rather unusual for cardiac failure to come on as suddenly as this, unless there be a change in the cardiac rhythm. There are cases of paroxysmal fibrillation in which within a very few hours the picture may change from one of health, with perhaps a little dyspnea on climbing hills, to fairly acute cardiac failure. These cases may be controlled with quinidine, and they are the cases of fibrillation in which quinidine is of greatest value. One may have an attack of paroxysmal tachycardia or flutter which will bring on the picture of fairly rapid cardiac decompensation with, in the case of paroxysmal tachycardia, abdominal pain and vomiting. In fact the sudden onset of paroxysmal tachycardia may simulate ulcer pain or other acute abdominal condition. Of course the case under discussion is not one of these acute paroxysmal conditions. The development of the upper respiratory infection is often the cause of a cardiac break, with the heart often improving under rest and with the subsidence of the infection. There has been here, whether we can explain it or not, a rather quick change for the worse in her cardiac condition in the last six months.

What type of cardiac disease is she likely to have?

NOTES ON THE PHYSICAL EXAMINATION

One thing we very much want to know we are not told, and that is whether or not there is an arrhythmia.

MISS PAINTER: The action is recorded as regular.

DR. FREMONT-SMITH: She shows arcus senilis and a blood pressure that is high even now, in acute cardiac failure. In other words it is reasonable to assume that her blood pressure was considerably higher earlier. We have then several factors which would lead us to think that this heart might be the hypertensive heart, with evidence of cardiosclerosis.

On the other hand the woman is forty-two, young for this type of heart disease. Forty-two is a perfectly reasonable age for the rheumatic heart to fail. They often fail earlier. The syphilitic heart is characteristically a heart that is damaged and fails within a comparatively short span of years. The evidence here, I should feel, lies toward the sclerotic heart with enlargement.

She has pneumonia too.

With a non-protein nitrogen of twenty-eight I think we are pretty safe in saying that her hypertension is not on a nephritic basis.

I wonder if anyone knows enough about leeches to tell us why her legs might have swollen up after the application of these animals. Of course if she had an infection we should expect to hear more about it than this. The leeches were applied some time before she came in.

Probably they thought that under the circumstances, with pneumonia, they ought to give her plenty of fluids in spite of her edema.

To keep her quiet is of course the most important thing that can be done for that woman.

Of course they felt that she should be digitalized; and one and a half grains of the digitalis leaf will digitalize about ten pounds of body weight. That would mean about twenty-two grains to digitalize a person of 150 pounds. This woman is evidently a good deal larger, and they felt she would need thirty grains. They wanted to get it in as quickly as possible and they gave it intramuscularly.

Bleeding is the other therapeutic measure which might be of value in acute cardiac failure with pulmonary edema and cyanosis. Usually however when a patient comes to this point the situation is so bad that nothing does any good. There have however been cases in which the picture has changed very definitely after the withdrawal of 300 to 500 c.c. of blood.

The pulmonary edema has temporarily cleared, the cyanosis has disappeared, the venous pressure, which has been high, has become lowered sufficiently so that the heart can get rid of some of the blood overfilling it; therefore the heart itself is relieved. The kidneys, which have been passively congested and therefore putting out fluid badly, are drained of their venous engorgement so that the edema may improve. In other words, there is a good deal of rationale for bleeding in this one condition, and practically in this one only. In this case it helped somewhat.

DIFFERENTIAL DIAGNOSIS

This is a straight case of cardiac failure. We shall find, I expect, an enlarged heart, probably with some cardiosclerosis and arteriosclerosis, massive edema, more fluid in the abdominal cavity than was found on physical examination probably, possibly fluid in one thoracic cavity, and a patch of bronchopneumonia.

Miss Painter: It is only fair to say that because she was here such a short time the examination of the urine was not done.

Dr. Fremont-Smith: She was in only over night, that is perfectly true.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Hypertensive and arteriosclerotic heart disease.
Cardiac decompensation.
Bright's disease.

DR. MAURICE FREMONT-SMITH'S DIAGNOSIS

Hypertensive heart disease.
Hypertrophy and dilatation of the heart.
Arteriosclerosis.
Bronchopneumonia.

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesion*

(Diabetes mellitus.)

2. *Secondary or terminal lesions*

Lobar pneumonia, left lung.
Focal pneumonia of each lung.
Arteriosclerosis.
Hypertrophy of the heart.
Fatty metamorphosis of liver.
Fatty infiltration of pancreas.

3. *Historical landmarks*

Adenoma of right adrenal.
Lipoma of left upper arm.
Chronic pleuritis, left.
Hypertrophy of the spleen.

Dr. Richardson: We were not permitted to examine the head.

The hands, legs and feet were somewhat swollen and pitted on pressure. Just above the left elbow was an ovoid mass six by three and a half by two and a half cm. Section showed it to be a typical lipoma.

There was a good amount of subcutaneous fat. The muscles were pale.

The liver was seven cm. below the costal border. The diaphragm was at the third interspace on the right, at the fifth rib on the left. There were a few cubic centimeters of thin pale clear fluid in the left pleural cavity, a few adhesions at the apex and scattered ones elsewhere. The trachea and bronchi contained a small amount of mucopurulent material. In the right lung were several foci of pneumonia. In the left, about one-half of the lower lobe and other scattered places showed frank pneumonia.

The heart weighed 440 grams,—considerably enlarged. The myocardium was thick, the left ventricle fifteen mm., the right about the usual thickness, three mm. The columnae carneae were well marked. The cavities however showed no good evidence of dilatation and the valves were negative. The coronaries were free, capacious, negative. The aorta showed scattered along it from the ascending thoracic down to the abdominal portion more or less diffuse fibrous sclerosis, and the great branches showed fibrous sclerosis in slight amount,—all told a moderate amount of arteriosclerosis, but more than we should expect at this age.

The liver weighed 2770 grams,—moderately enlarged. (Normally 1200-2400.) The tissue was cinnamon-brown-red and punky,—fatty metamorphosis of the liver.

The pancreas also showed much fatty infiltration. There were no changes in the islands of Langerhans.

In the situation of the right adrenal was a large mass seven by seven by three and a half cm., an unusually large adenoma of the adrenal.

The spleen weighed 445 grams. That was considerably enlarged. There were a few adhesions to the diaphragm. The tissue was rather dark brown-red and soft. This woman was an Armenian.

The kidneys weighed 340 grams and were negative. The bladder contained thin pale fairly clear urine, and Benedick's test showed two to three per cent. of sugar.

Dr. Fremont-Smith: I think that everything was against us,—her being an Armenian without a history, and so not mentioning frequency or hunger or any of the things that one would think of, and the fact that no urine was got. It would have been pretty hard to make a diagnosis.

She died of course from pneumonia. How much her heart actually came into the situation it is hard to say. But these symptoms for the last four months are the symptoms of heart failure and not the symptoms of diabetes. Of course her pneumonia might very well have been overcome had she not had the diabetes or had her sugar been controlled.

A PHYSICIAN: Are these fatty changes common in diabetes?

DR. RICHARDSON: Yes; they occur at times in association with diabetes, but seem to have no relation to the disease.

CASE 11053

SURGICAL DEPARTMENT

A six-year-old schoolgirl came to the Emergency Ward September 10. She had had sore throat, fever, frequency and pain in the right side for the past few days.

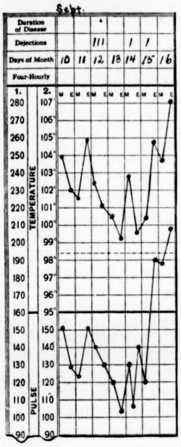
F. H. Good.

P. H. She was born at full term, normal delivery, and weighed only about four pounds at birth. She was breast fed until one year old, grew well and developed normally. She had measles, mumps, chickenpox and whooping cough between two and four years without serious complications. The winter before admission she had a swollen, red and tender knee-joint for two weeks and was thought to have rheumatic fever.

P. I. September 5 she complained of sore throat and was feverish and restless. The following night she vomited greenish-yellow fluid several times and complained of epigastric pain. September 6 she felt better, but could not retain food or fluid taken by mouth. September 7 she complained of the pain's being in the right side. September 9 she was so tender that she did not want to be lifted out of bed. Her bowels, which usually tended to be constipated, moved well September 9 after a cathartic. Since the onset she had urinated almost every hour by day and frequently at night. There had been no scalding.

P. E. A fairly well developed and nourished child looking rather ill, but mentally alert and coöperative. Face pinched. Eyes slightly sunken. Conjunctivae injected. Head negative. Cervical glands slightly enlarged. Chest long and narrow. *Lungs* and *heart* normal except for rapid heart action. *Abdomen* full and tympanitic. Slight tenderness on deep pressure over right lower quadrant. Marked tenderness over the right costovertebral area. Less tenderness in the right flank. Spasm not marked. *Extremities, pupils* and *reflexes* normal. *Genitals* not recorded.

T. and *P.* as shown in the chart. Before operation *R.* 20-36, amount of *urine* not recorded, sp. gr. 1.006-1.012, neutral at two of five examinations, no albumin or sugar (a catheter specimen was taken); *blood,* hgb. 100%, leucocytes 15,000-23,400, polynuclears 84%, reds normal. *X-ray* negative. *First surgical consultant.* (1) Spasm most intense in costovertebral region. (2) Rectal examination negative. (3) Temperature 105°. This suggests kidney rather than appendix. *Second surgical consultant.* Probable pyelitis. *Genito-urinary consultant.* "The tenderness is definite to-night (September 12). It seems confined to the right upper quadrant and the right side of the abdomen and is most definite in the costovertebral angle. . . . Recommend operation."



September 13 there was less tenderness in the costovertebral angle but much in the right flank; no spasm or tenderness over the appendix.

September 15 operation was done. Seven hours after it the temperature suddenly rose to 104.6°, the pulse to 170, and the respirations to 50. There was generalized tenderness and spasm over the abdomen. The chest was clear. The next day the patient appeared much worse. Subpectoral saline 1000 c.c. was given in the morning and at night. Shortly after midnight the child died.

DISCUSSION

BY DR. EDWARD L. YOUNG, JR.

A child of six always should put us on the defensive, because a child of six can have appendicitis with such grossly atypical symptoms or with such a lack of symptoms in spite of a serious trouble that we must always be on our guard. This child starts with an infection in the tonsils, which is notoriously a type of infection which often spreads to other parts of the body. For instance, it is not unusual to have a metastatic coccus infection of the kidney following a tonsillitis. In this particular case there is definite tenderness over the right costovertebral area. However, if this child has a coccus kidney a culture of the urine or a stained sediment after high speed centrifugalization should show it. We must also remember that a retrocecal appendix can and often does cause tenderness in the flank and even as high up as the kidney, and because it is retrocecal the abdominal tenderness and spasm is correspondingly lessened.

There is one thing in this case which I think is very important and in my mind would aid in diagnosis, and that is that the first pain was epigastric and that later it was in the right lower quadrant. That is almost diagnostic of appendicitis.

Apparently the men here were in doubt, as I am, about diagnosis, because of the delay in operation. The falling temperature and pulse would make one think that delay was justifiable, but apparently a rise in white count suggested that operation was advisable.

As I have the case on paper without any chance to feel the patient my opinion may be different from what it would have been if I had seen the patient, but I believe that it is an appendix abscess. If I felt obliged to operate on this child at all I should go in on the basis of a retrocecal appendix with of course abscess formation, because a temperature such as this child has is rarely if ever due to an uncomplicated appendix. But as we have already stated, this appendix is of necessity retrocecal, and the abscess which has formed is well walled off from the abdominal cavity. It is of course possible that it might continue on with the formation of a perinephric abscess from extension and may perhaps have already done so, but I believe that the primary focus was in the appendix and not in the kidney. Whether or not this is a metastatic process from the tonsil is of course difficult to say, but from our experience I believe that it might well have started in that fashion.

DR. YOUNG'S PRE-OPERATIVE DIAGNOSIS

Appendix abscess.

PRE-OPERATIVE DIAGNOSIS

(1) Perinephric abscess.
(2) Appendix abscess.

OPERATION

Ether. Before operation the patient had a rapid pulse, but the abdomen remained soft and peritonitis was thought not to exist. Through a right loin incision carried down through the muscles the fascial layers and the intramuscular spaces were found to be edematous as in perinephritis. The perirenal fat was edematous, but the kidney was normal. After this exploration was made it was found that an abscess apparently within the abdomen lay in contact with the lower pole of the kidney. The peritoneum was opened without exposing the abdominal cavity. A mass of adhesions seemed to have effectively walled off the abscess cavity from the peritoneum. On opening through the peritoneum about two drams of thick pus was evacuated from an appendix abscess about one inch in diameter. Rubber wicks and rubber tube drains were placed in the cavity, but no attempt was made to find or remove the appendix. The patient was in fair condition at the end of operation.

FURTHER DISCUSSION

From the description of the operation it would seem as though the patient ought to recover with drainage of the abscess. Recognising however that this is an autopsied case it may be that tearing up as much tissue as was necessary to expose and explore the kidney resulted in enough spread of sepsis and shock to prove fatal. From the course it sounds as though this was in fact what happened, that there was a widespread sepsis which resulted in death.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Acute appendicitis with abscess, septicemia type.
Incision and drainage of appendix abscess.

DR. EDWARD L. YOUNG'S DIAGNOSIS

Appendix abscess.
General peritonitis.

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesions*

Gangrenous appendix, abscess and general peritonitis.

2. *Secondary or terminal lesion*

Acute pleuritis.

3. *Historical landmark*

Operation wound.

DR. RICHARDSON: The abdomen was slightly distended, the wall a little rigid. The peritoneal cavity contained much thin purulent fluid. The peritoneum generally was coated with fibrinopurulent exudate. The proximal half of the appendix showed ~~edema of~~ the wall, but it was ~~free~~ and the mucosa negative. The distal half was closed off in the region of its proximal portion, and in the situation there was a mass of purulent infiltrated adhesions which walled about an abscess cavity containing dirty reddish fibrinopurulent material in the midst of which rested the necrotic remains of the distal half of the appendix. The retroperitoneal tissues, in the region extending up to and involving to some extent the perirenal tissues in the region of the lower pole of the right kidney, showed purulent infiltration. On the right posterolateral aspect of the mass there was purulent infiltration and necrosis to which the operation wound led down. Purulent infiltrated adhesions also extended to the lower end of the ileum. The peritoneum in the region was coated with exudate.

The small intestine was slightly distended and contained much dirty reddish opaque fluid material.

The mesenteric and retroperitoneal glands were slightly enlarged and reddened. The liver was at the costal border in the right mammillary line. The diaphragm was at the third space on the right, the fourth rib on the left.

In each pleural cavity there was about 100 c.c. of cloudy fluid and fibrin. The pleura over the lower lobes showed a slight fibrinous coating.

The thymus gland was present, weighed 8 grams, and was negative.

The lung tissue generally was pale red, spongy, and yielded a moderate amount of reddish frothy fluid. In the region of the lower lobes there were a few scattered areas of hemorrhagic edema.

◆

CURRENT LITERATURE

ABSTRACTORS

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The Protective Power of Normal Human Serum Against Pneumococcus Infection

Clough, P. W. (*Johns Hopkins Hospital Bulletin*, October, 1924), discusses the protective power of normal human serum against the pneumococcus, summarizing his investigations as follows:

The protective power for mice of the serum of normal individuals was tested against infection with highly virulent strains of pneumococci of the three fixed types. Definite protective power (from 10 or more M. L. D. of culture) was demonstrated in 4 of 22 sera tested against pneumococcus Type I; in 8 of 18 sera tested against pneumococcus Type II; and in 11 of 23 sera tested against pneumococcus Type III.

The degree of protective power was usually slight, but in five instances, the serum protected from 1000 to 100,000 M. L. D. This is as high a degree of protective power as has ordinarily been found in the serum of vaccinated individuals, or of patients recovering from acute lobar pneumonia.

Protective power against one type of pneumococcus was not necessarily associated with protective power against other types. Of 15 sera tested against all three fixed types, none protected definitely against all three; five sera protected against two of the three types; and eleven against one or more of the three types. Sera which protected against Type II pneumococci usually but not invariably protected also against an Atypical II A strain, and vice versa.

None of the normal individuals studied had received pneumococcus vaccine. One only had a history of a long antecedent pneumonia. None of those most actively protecting were found to be carriers of a fixed type pneumococcus.

The serum of the only carrier of a fixed type pneumococcus available for study (two years after recovery from a Type III pneumonia) had protective power against that type.

The normal sera that protected most effectively against a fixed type pneumococcus caused no agglutination or phagocytosis *in vitro* of that type, in contrast with the sera of convalescent patients, which (like immune sera) usually possessed marked agglutinative and phagocytic activity, as well as protective power for the type of organism causing the recent infection. No difference was found between the slight bactericidal power of normal sera which exerted protective power and of those which did not protect. No explanation of the mechanism of the protective action of normal serum was found, but it apparently differs in some details at least from that of immune serum.

The combination of a highly protective normal serum with immune serum did not protect any better against Type III infection than did either one alone.

Further observations will be required to determine the significance of this protective power. It seems probable that it is a manifestation of one of the important defensive mechanisms in natural immunity.

The not infrequent spontaneous occurrence of protective power in the serum must be kept in mind in the study of vaccinated, or otherwise artificially immunized, individuals.

[J. B. H.]

New Method for Gradual Decompression of the Bladder in Cases of Massive Retention

Cunningham, John H. (*Jour. of Urology*, October, 1924).

The article relates the advantage of gradual emptying of the bladder and the complications resulting by not using this care. The author, through the cooperation of Mr. Sanborn, of the Sanborn Diagnostic Apparatus Co., has devised a bladder manometer consisting of a measuring tube and indicating gauges designed on the principle of the Venturi Meter. To operate, constant bladder drainage is established, the manometer is attached, initial pressure readings are noted, then the clamp is loosened to permit constant flow at a given reduced pressure. Reductions are made at intervals of 12 to 24 hours and the bladder is completely emptied. The criterion for discontinuing gradual decompression, in the author's opinion, lies in the degree of renal and circulatory adjustment. It is his rule to continue until the systolic blood pressure begins to rise again after the initial drop and improvement is evident in the blood chemistry. This usually requires three to four days.

[B. D. W.]

Some Problems of Calculus of the Lower Ureter

Hamer, H. G. (*Jour. of Urology*, October, 1924).

There is divided opinion among urologists; there are those who favor intra-ureteral methods and who feel confident of success in a large per cent. of cases of ureteral stones that are small enough to engage in regard the operation of uretero-lithotomy so easy of the ureter; while those favorable to surgical removal accomplishment that all stones which are not passed promptly after one or two ureter catheter manipulations should be operated. Predisposition to infection and ultimate destruction of the kidney, size and shape of calculus in relation to the ureter, impaction, failure to establish drainage,—all must be taken into consideration and applied to the individual case. The author reports in detail ten cases with X-ray prints.

[B. D. W.]

Silicosis in Ontario Gold Miners

Elliott, J. H. (*Canad. Med. Journal,* 14:930, October, 1924), reports some cases of this condition and offers the following suggestions: That men who have worked for five years in mines elsewhese be examined with the fluoroscope if engaged for underground work, and that a yearly examination be made thereafter. That all employees be examined with the fluoroscope at the end of five years' underground work and yearly thereafter. That when the fluoroscope reveals possible dust deposit and fibrosis, that stereographic radiograms be studied. That when fibrosis is found the men be given surface employment. That the use of the dry drill be discontinued. That all surfaces be kept constantly wet. That provision be made for thorough ventilation. Though the occurrence of miners' phthisis is proven, it does not appear to be a serious problem at present. This is doubtless due principally to the fact that few of the men remain strictly at the one type of work, but frequently leave the mines for other occupations. As the mining industry develops to larger proportions in this camp this factor will lessen and the rate of incidence tend to increase. The incidence will be lessened by the discontinuance of the dry drill which has been effected by the Mines Inspection staff of the Province. Further, through their efforts the large mines are now kept sufficiently wet and have provision for adequate ventilation.

[A. W. C.]

Non-Protein Nitrogen Retention During Eclampsia and Allied Conditions

Plass, E. D. (*Johns Hopkins Hospital Bulletin,* November, 1924), in an elaborate paper discussing the blood nitrogen curve in normal and in toxemic pregnancies comes to the following conclusions:

"The period of immediate convalescence from the late toxemias of pregnancy is usually associated with higher plasma non-protein nitrogen values than is the period of the most acute clinical signs. This blood nitrogen rise is synchronous with a fall in the plasma protein, percentage, which indicates a plasma dilution. These variations may be noted after improvement induced by any therapeutic procedure, but are most marked after delivery."

And then again on the same subject **Bogert, L. J.** (*Johns Hopkins Hospital Bulletin,* November, 1924), presents the following summary in addition:

"The plasma proteins tend to decrease during the early part of pregnancy, reaching a minimum at the sixth month. They then increase somewhat during the latter months, undergo a sharp rise during labor, only to drop precipitately early in the puerperium, and finally rise slowly to normal at the end of the first week *post partum.* In general, patients suffering from the late toxemias of pregnancy have similar variations but the dilution is more marked, depending largely upon the extent of the clinical edema.

"The existence of blood and plasma dilution should be considered whenever blood studies are done during pregnancy and labor, or the convalescence therefrom."

[J. B. H.]

Urinary Reflux

Bumpus, Hermon C., Jr. (*Jour. of Urology,* October, 1924).

Chronic urinary reflux occurs in approximately 8 per cent. of patients with disease of the urinary tract. The reflux seems to bear a direct relation to urinary infection, and is not influenced by obstruction in the lower urinary tract. It does not affect renal function, but in its presence, care should be taken with regard to the type of lavage solution employed in treating the bladder.

[B. D. W.]

An Experimental Study of Ununited Fractures with Especial Reference to the Inorganic Bone-Forming Elements in the Blood Serum

Petersen, H. A. (*Johns Hopkins Hospital Bulletin,* November, 1924), as a result of his studies on the subject of ununited fractures comes to the following conclusions:

1. In the healing of fractures a definite relationship exists between the concentration of the inorganic bone-forming elements in the serum and the rate of repair.
2. If the phosphorus content of the blood serum of the dog is reduced by diet to such a degree that the product of the calcium and phosphorus is less than thirty, fractures will not unite.
3. If the phosphorus and the calcium-phosphorus product are again raised to their normal level, the fractured bones will unite.

[J. B. H.]

Rupture of the Urinary Bladder

Crosbie, Arthur H. (*Jour. of Urology,* October, 1924).

Free suprapubic bladder drainage in all cases of ruptured bladder, whether the rupture be extra or intraperitoneal, is important. There is no necessity of flushing out the abdominal cavity in cases of intraperitoneal rupture of the bladder. It is not necessary to take the time to sew up rents in the bladder whether the rupture be extra or intraperitoneal. Ruptures may also be subperitoneal. Bladder ruptures may be either spontaneous or traumatic; spontaneous rupture is very rare and almost never occurs, except where there is disease of the walls of the bladder. In neglected cases where suppuration has reached the most dependent parts of the extravesical space, drainage tubes should be carried beneath the public bones and brought out through the perineum.

[B. D. W.]

An Analysis of Fifty Cases of Renal Calculi

Chute, A. L. (*Jour. of Urology,* October, 1924).

Renal stones bring about a great destruction of kidney tissue: In 7 out of 50 cases reviewed, one kidney had been completely destroyed, in 12 others the destruction of tissue was so extensive that the value of the kidney was very problematical. Unfortunately there is a considerable tendency for stones to develop in both kidneys—found in 9 cases of this series, or 18 per cent. The early recognition and removal of renal stones will materially lessen their power for destruction. This can best be brought about by an increased appreciation on the part of the general practitioners of the destructiveness of renal stones and the importance of having them removed early.

[B. D. W.]

The Use of Eserin and Strychnin in Post-Operative Abdominal Distention

Martzloff, K. H. (*Johns Hopkins Hospital Bulletin,* November, 1924), as a result of his studies on the use of eserin and strychnin in preventing and alleviating post-operative abdominal distention concludes that "they have not been able to demonstrate any benefits to be derived from the post-operative use of eserin and strychnin, as described, in abdominal operations on the pelvic viscera. In fact, paradoxical as it may seem, post-operative complications such as emesis, delayed voluntary micturition, and particularly distention, appear to occur more frequently in patients treated prophylactically with eserin and strychnin than in those not so treated, and its use, therefore, has been abandoned on the gynecological service of the Johns Hopkins Hospital."

[J. B. H.]

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YELLOW FEVER AND THE ROCKEFELLER FOUNDATION

PRESIDENT GEORGE E. VINCENT of the Rockefeller Health Foundation addressed the Aesculapian Club of the Harvard Medical School on January 17, taking as his subject the work of the Foundation in furthering yellow fever extermination.

Before the war General Gorgas, still Surgeon General of the United States Army, was approached with a view to determining the causes of the continued existence of yellow fever and to find means, if possible, for controlling it. Granted a few months leave of absence he sailed for South America to make a preliminary study. The result of this investigation disclosed the fact that yellow fever was kept alive by a few endemic centers in South and Central America notably in Ecuador, Venezuela, Brazil and Mexico. Further activities were prevented by the entrance of the United States into the World War, but at the close of hostilities and after his retirement from the army, General Gorgas undertook the organization of an extermination campaign in these endemic centers. Guayaquil was selected as the municipality for the first demonstration.

Noguchi had been chosen to undertake the bacteriological work of the campaign, and as a result of his studies it became apparent that the female Stegomyia mosquito, known as the carrier of the disease, was the host of a spirochaeta which was apparently the causative organism. The first step, therefore, was to control the egg-laying activities of this mosquito, and with close coöperation from the municipal authorities of Guayaquil, certain ordinances were enforced. These consisted in the screening of all water supplies that could be screened, and in the stocking of all others with a surface-feeding fish that destroyed the eggs as fast as they could be laid. The endemic index of yellow fever had been about 400 cases a year. In December, 1918, the first month of this campaign, 73 cases were reported. In January the number rated over 80. In February it was still 70. In March, 1919, a drop was noted. In May, 2 cases were reported, and since that time Guayaquil has been yellow fever free. In like manner the other endemic centers were controlled, until, at the present day, no known centers exist except on the gold coast of Africa.

During the course of these investigations it was learned that yellow fever does not produce carriers; that it is kept alive in a community by children who exhibit extremely mild cases of the disease, and that it tends to disappear when the Stegomyia index falls to 5 per cent. of the available breeding places. Fresh outbreaks are caused by individuals harboring the spirochaeta travelling into non-immune communities.

President Vincent's main message to the medical profession was one that this JOURNAL has reiterated in the past, and will continue in the future. The most important feature of the coming work of the medical profession, in the laboratory and in the practice, lies in the prevention of diseases. In this every member, whether he be sanitarian or practitioner, can share. Denmark, a country with the minimum of public health organizations, enjoys the highest degree of public health because every member of the medical profession is endowed with a public health conscience. Each practitioner is a sanitarian and a conserver of health as well as a physician who is called in time of sickness.

THE DISTRIBUTION OF PHYSICIANS IN THE UNITED STATES

MUCH has been said, during the last few years, of the scarcity of physicians in rural districts. That the number of physicians practising in these districts has decreased both relatively and absolutely cannot be denied; the reasons alleged to be at the bottom of the situation have been many, but have been based largely upon impressions and isolated instances. A clear light has been shed over this problem by the study recently published by the General Education Board and written by Lewis Mayers and Leonard V. Harrison. In some 150 pages they discuss the question under the following headings, a perusal of which will convince one of the thoroughness of the work:—

I. Basic factors affecting the distribution of physicians between town and country.

II. The distribution of physicians between town and country.

III. The accessibility and cost of medical service in rural areas.

IV. The vacant rural location.

V. Medical education and the supply of rural physicians.

Briefly stated, Mayers and Harrison admit the decrease in the number of physicians practising in rural districts. This decrease has to a large degree followed the actual decline of rural population and the tendency for people to congregate in towns and cities. Other factors involved in the desertion of the country by doctors are financial, economic and professional. For various reasons which cannot be gone into in so brief a summary, it has become increasingly difficult for the village doctor to meet his expenses. Not least among these reasons is the advent of the automobile, which brings the town physician into direct competition with his village confrere. Among the economic reasons may be mentioned the difficulties attendant upon travel, especially during bad weather, and the absence of schools, churches and social life. The obstacles to a satisfactory performance of professional duties, even the absence of running water and electricity, to say nothing of the lack of more highly technical aids to diagnosis and treatment, have discouraged young graduates from settling where these almost essential aids cannot be had.

The question whether the admitted decrease in physicians has really worked a hardship for any considerable number of communities is taken up by the authors of this study. They considered in detail the distribution of physicians in certain states, and found that there were but very few areas, and these mostly unsettled forests, marshes or mountains, which were more than ten air miles from a physician. In Massachusetts there is no such area.

Mayers and Harrison assume that a population of at least 1,000 is needed to support a doctor, and contend that if any collection of individuals is without a physician more than temporarily, it is because experience has shown that a living cannot be made in that particular neighborhood. The methods which may be employed to secure a physician are by subsidy, by guarantee of a certain income, or by payment of a salary for full-time services. None of these has been tried in more than a few instances.

The authors recommend a registry conducted by State Boards of Health, through which towns with vacancies may get in touch with possible candidates. They express the opinion most emphatically that a community which would provide a subsidy, even though it were small, and living quarters, and would guarantee the collection of fees, would have little difficulty in securing a physician, no matter how difficult the conditions of practice there.

They do not believe that the dearth of country physicians is due primarily to the reduction in numbers of graduates, to the increased requirements, or to the kind of medical education now prevalent. A marked increase in the number of medical students would result in fiercer competition in the cities and towns, which would force a few of the least successful into unattractive and unprofitable locations.

No summary of this interesting and valuable study can convey its entire message. It should be read in full; the reader will be repaid for his time. We feel that the authors carry their point, which, as we interpret it, is this: the problem of supplying medical service to rural communities should depend upon the communities themselves. If they want a doctor badly enough to offer him a reasonably certain living, and will guarantee him the practice of the people among whom he lives, they can secure his services. This method of handling the problem will tend to restore the country doctor to the esteemed position which he once held; it will work out vastly better for all concerned than if the gap were filled by the least successful of the medical profession, driven by competition to fill the position as a last resort.

MOONSHINE

The Chicago Health Bulletin reports that two hundred and thirty-nine persons were killed by moonshine during 1924 and scores of persons were made blind or insane by the poisonous liquor. Remote effects are to be found in accidents, suicides and murders directly due to the use of these poisonous compounds.

Other investigators claim that out of 1566 morgue deaths, 687, or 43.8%, were due to alcoholism and it appears that the number of deaths is increasing. The Bulletin quotes the statement of prohibition agents to the effect that of 80,000 samples of liquor seized, analysis showed only one-tenth of one per cent. to be genuine.

It is conceded that present police activities are wholly unable to prevent the distribution of illicit liquor.

The only consolation in this situation is that those people who indulge in these compounds and die as a rule are not the highest type of citizens but the danger to innocent victims of these inebriates more especially calls for effective control of the bootlegging business.

MISCELLANY

NOTES FROM THE WORCESTER DISTRICT

On Saturday, January 10th, Dr. Ray W. Greene of 21 West Street, Worcester, was united in marriage with Miss Alma Melvin. The ceremony was performed at five o'clock in the afternoon with only the immediate families present. Dr. and Mrs. Greene are on a ten-day honeymoon in the Berkshires. Dr. Greene has occupied a prominent position in medical affairs in Worcester, and his associates and friends extend cordial good wishes. Mrs. Greene is a graduate of the Worcester City Hospital Training School.

Dr. James A. Givan has resigned as Resident Physician at the Worcester City Hospital and has opened an office at 7 Ashland Street, Worcester.

Dr. John Livingstone Burisch has opened an office at 86 Pleasant Street, Worcester. Dr. Burisch has recently completed a two-year appointment on the house staff of the Worcester City Hospital.

Dr. Earl Edward Fipphen has been appointed assistant visiting anaesthetist at the Worcester City Hospital.

Dr. A. W. Marsh has been appointed chairman of a committee of the Worcester District Medical Society to arrange for a public meeting of this Society the first part of April. A similar meeting was held a year ago and a very large audience listened to the program at that time.

The monthly meeting of the staff of the Worcester City Hospital was held at the hospital on January 2nd at 8.30 P. M. At this meeting, the several members of the staff who attended the meeting of the American College of Surgeons last fall in New York gave reports which were enjoyed by the staff. Dr. A. W. Marsh was elected president and Dr. Ralph W. Ellis was elected secretary of the staff.

The Worcester District Medical Society held its regular monthly meeting at the Out-Patient building of the Worcester City Hospital on January 14th. The business session at five-thirty was followed by a buffet supper served through the courtesy of Dr. Chas. Drew, superintendent of the hospital. At seven o'clock the evening program was begun by a report of a case of a ureteral-vesicle cyst by Dr. Walter Bieberbach of the Urological Staff. The case was briefly described by Dr. Bieberbach and illustrated by pyelograms.

The motion pictures showing the complex phenomena of stomach and duodenum prepared by Dr. Coley, New York, followed Dr. Bieberbach's talk.

Dr. Royal P. Watkins, Senior Visiting Surgeon of the Hospital, then read a very interesting paper on the "Doubtful Abdomen." This paper was well prepared and reflected credit on the writer. Dr. Watkins' paper was discussed at length by Drs. Marsh, R. J. Ward, George, Seelye, Fallon, and Cook.

The meeting was adjourned at 9.30 P. M.

THE NATIONAL COMMITTEE FOR MENTAL HYGIENE

The Board of Directors of the National Committee for Mental Hygiene at their eighth annual meeting held recently in New York City, added the following new Directors to their membership:

Dr. George L. Wallace, Superintendent, State Training School for the Feebleminded, Wrentham, Mass.

Dr. Austen Fox Riggs of Stockbridge, Mass.

Dr. Augustus S. Knight of Gladstone, N. J., Medical Director, Metropolitan Life Insurance Company, New York.

Dr. J. M. Murdoch, Superintendent, State Training School for the Feebleminded, Polk, Penna.

Dr. Ray Lyman Wilbur, President, Stanford University, California.

Dr. Ernest M. Hopkins, President, Dartmouth College, Hanover, N. H.

Dr. James R. Angell, President, Yale University, New Haven, Conn.

Dr. Charles S. Little, Superintendent, Letchworth Village for the Feebleminded, Thiells, New York.

Dr. W. H. P. Faunce, President, Brown University, Providence, R. I.

Dr. William A. Neilson, President, Smith College, Northampton, Mass.

Mr. Harry P. Robbins of New York, N. Y.

President Angell of Yale University was also elected a Vice-President of the National Committee for Mental Hygiene, and Dr. Frankwood E. Williams was reappointed Medical Director.

The following physicians and laymen were elected members of the Executive Committee for the ensuing year:

Dr. Arthur H. Ruggles, Director, Butler Hospital for Nervous and Mental Diseases, Providence, R. I., Chairman.

Prof. Stephen P. Duggan, Director, Institute of International Education, New York City.

Mr. Matthew C. Fleming of New York, N. Y.

Dr. C. Floyd Haviland, Chairman, State Hospital Commission, Albany, N. Y.

Mr. Harry P. Robbins of New York, N. Y.

Dr. George L. Wallace, of Wrentham, Mass.

Dr. William A. White, Superintendent, St. Elizabeth's Hospital, Washington, D. C.

Dr. Charles P. Emerson, Dean, Indiana University Medical School, Indianapolis, Ind. (ex-officio).

HARMONIZING WORKMEN'S COMPENSATION LAWS

Workmen's compensation laws, even those of some adjoining states, differ either medically or legally in important details, says the National Industrial Conference Board, 247 Park Avenue, New York City, in presenting seventeen suggestions offered by its medical adviser, the Conference Board of Physicians in Industry, for harmonizing the medical differences and thereby doing away with much confusion and many difficulties in the administration of the laws.

While there is a general similarity in all of the laws, important differences are found in them which make for misunderstandings and discontent on the part of workmen having claims under them. This is particularly true in adjoining states, in one of which benefits for certain injuries may be much higher than for similar conditions in a neighboring commonwealth. The situation has been further complicated by decisions of industrial commissions and courts which often make opposite interpretations of identical phraseology in different laws.

The Board of Physicians suggests, in effect, that:

At least one member of each state compensation board should be a physician, who should also be the medical director of the board;

Each board should have a consulting staff of specialists to advise it on medical problems;

Examining physicians should be appointed by the state board on recommendation of the consulting staff on the basis of their professional qualifications;

Only licensed graduates of recognized medical schools should be permitted to treat compensation cases;

Medical fees should conform to the average charges for like work in the community;

"Medical treatment" should include all necessary medical, surgical, and hospital care and attendance and also such supplies and appliances as may be necessary;

Examination of an injured worker should be made immediately following the injury and later examinations should be at the expense of the party requesting the same;

The choice of physician should be made by the employer or be made by the employee from a list of local physicians compiled by the employer;

cians should be furnished to all interested parties, and reports and testimony of other physicians should not be allowed before the board till medical representatives of the other party

Copies of the findings of examining physi-
have knowledge of the information to be given;

The refusal of medical treatment by the injured worker should release the employer from further responsibility in the matter;

Amputations should be made with regard to the function of the part remaining and not alone with regard to the amount of tissue removed, which latter proceeding might leave a tender appendage, useless for applying an artificial member, and would, at the same time, in some states reduce the compensation of the injured employee;

Autopsies should be made at the request of the employer, the beneficiaries, or the state board, and should be paid for by the party requesting them;

Compensation for disease alleged to be due to accident should be granted only on proof of direct casual connection between the accident and the onset of the disease;

Compensation for the aggravation of latent or pre-existing disease should be limited to the degree of disability caused by the aggravation;

The per cent. of reduction of vision and its economic valuation should be based on the age and occupation of the employee, and each case should be judged on its merits and not by a predetermined schedule;

Claims that hernia has been caused by employment must be made within twenty-four hours of its alleged occurrence and must be supported by proof of certain specified conditions;

Compensation should be granted for occupational diseases that are peculiar to the employment or are due to some unexpected result thereof. The term "and sequelae" frequently used in connection with occupational disease schedules, should be eliminated.

These provisions are not new departures, since every one of them may be found in the compensation laws of one or more of the states; but, the Conference Board points out, their substantial inclusion in all the state laws would obviate much of the confusion and difficulty now experienced in the administration of these laws.

APPOINTMENTS AT THE HARVARD MEDICAL SCHOOL

THE following appointments at Harvard Medical School were confirmed by the Board of Overseers of Harvard College at their meeting of January 12th, 1925. Dr. Kenneth Daniel Blackfen, Professor of Pediatrics, has been elected to the Thomas Morgan Rotch Professorship of Pediatrics to serve from November 1st, 1924.

John Howard Mueller, Assistant Professor of Bacteriology and Immunology, has been chosen for the Silas Arnold Houghton Assistant Professorship of Bacteriology and Immunology, to serve from September 1st, 1924, for two years.

Hilbert Francis Day has been appointed as Instructor in Surgery to serve for three years from September 1st, 1925.

HARVARD SCHOOL OF PUBLIC HEALTH

THE Rockefeller Foundation gave a dinner to their fellows in the School of Public Health, the Medical School and the Graduate School of

Medicine and the Faculty at Hotel Somerset on Friday evening, January 16th.

Dr. C. Macfie Campbell's course in Mental Hygiene starts on February 2nd.

Dr. Derrie C. Parmenter's course in Industrial Medicine commences on February 2nd.

Dr. E. E. Tyzzer's course in Parasitology starts on February 2nd.

A WORTHY CASE

The Journal is informed that the person, a former surgeon, for whom contributions were solicited in order to provide care during his illness and period of necessity, has died and therefore no further contributions are in order. The total amount of donations received through the Journal office is $310. The responses which have been made have indicated a very generous attitude on the part of the medical profession which is most commendable.

THE COMMITTEE OF STATE AND NATIONAL LEGISLATION OF THE MASSACHUSETTS HOMEOPATHIC SOCIETY

The following named doctors have been elected for the current year:

Dr. J. Arnold Rockwell, Dr. S. H. Calderwood, Dr. Henry Pollock, Dr. John P. Sutherland, Dr. Wesley T. Lee.

NEW YORK CITY VITAL STATISTICS FOR THE YEAR 1924

The health of the city for the year 1924 was exceptionally good. The number of deaths reported during the year was 71,252 as compared with the average for the immediately preceding five years, 73,432, a decrease of 2,180 deaths.

Those causes which showed a materially decreased mortality were influenza, a decrease of 1,696; tuberculosis of the lungs 1,220; diarrhoeal diseases under five, 1,023; diphtheria and croup 248. scarlet fever 143. acute respiratory diseases 538 and tuberculous meningitis 100. Those causes showing materially increased mortalities were as follows: chronic degenerative diseases, 1,906, which includes chronic organic heart diseases, chronic Bright's diseases of the arteries and cerebral apoplexy; cancer an increase of 642 deaths; typhoid fever 48 deaths; poliomyelitis 26; appendicitis 94; cirrhosis of the liver 22; accidental deaths 253; homicides 63 and suicides 34.

The great saving of life was under five years of age, there being 2,459 fewer deaths than in the five year average. The great loss was at ages sixty-five years and over, there having been exactly 1,000 more deaths reported in 1924 than in the five year average.

In all, 32,950 people died in institutions; 22,903 in tenements and apartment houses; 12,561 in private dwellings and 634 in hotels.

The death rate for the year was 68 per 1,000 of children born as compared with the average rate of 76, a saving of 8 lives out of every 1,000 born, which approximates 1,140 lives saved under one year of age.

In all, 130,426 births were reported during the year, a decrease of 858. 62,254 marriages were reported, an increase of 185.—*Bulletin, Department Health.*

WINNERS OF MODERN HOSPITAL'S ESSAY CONTEST ANNOUNCED

Mr. Edward A. Fitzpatrick, dean of the graduate college and educational director of the hospital college of Marquette University, Milwaukee, Wis., received first prize in the Modern Hospital Publishing Company's essay contest on "The Interrelationships of Hospital and Community," which closed November 1. Three awards of $350, $150, and $100, and three honorable mentions were made.

Second and third prizes went to Dr. Lucius R. Wilson, assistant superintendent, Barnes Hospital, St. Louis, Mo., and to Dr. D. L. Richardson, superintendent, Providence City Hospital, Providence, R. I., respectively.

Honorable mention was given to Mr. John R. Howard, Jr., superintendent, New York Nursery and Child's Hospital, New York; Mr. H. J. Southmayd, assistant superintendent, Mount Sinai Hospital, Cleveland, Ohio; and Miss Zella Nicolas, R. N., a graduate of the nursing school, Mount Sinai Hospital, New York, N. Y., now a student at Teachers' College, Columbia University, New York, N. Y.

The prize essay appears in full, together with biographical sketches of the winners, and comments of the committee of award, in the February issue of *The Modern Hospital.*

The committee of award of the contest was composed of three outstanding leaders in the hospital and public health field: Dr. Haven Emerson, professor of public health administration, Columbia University, New York, N. Y., chairman; Dr. Michael M. Davis, Jr., executive secretary, Committee on Dispensary Development of the United Hospital Fund of New York; and Dr. Willard C. Rappleye, superintendent, New Haven Hospital, New Haven, Conn.

AN ANONYMOUS CRITICISM

A communication signed "Medicus" dealing with the Life Extension Institute of Boston has been received.

It is the policy of the Journal not to publish correspondence unless the name of the author is submitted.

This policy is generally endorsed by reputable newspapers and journals. If the author will send in his name we will publish the letter.

LEGISLATIVE NOTES

Bills of Interest to Physicians

House 52. This bill expresses the wish of the Department of Education that the power to grant degrees in medicine should rest finally with the Department of Education after securing the advice of the Department of Public Health if this advice is sought. It might be more logical to appeal to the board of registration in medicine for all statistical matters relating to medical education are available to this board. Indeed this board is in a position to give this advice by reason of its association with other boards and bodies concerned in medical education.

House 66. This bill has been drafted by the board of registration in medicine for the purpose of striking out that feature of the law which provides for limiting the time during which the board may deprive a physician of the right to practise. At the present time certain offenses may be punished by cancellation of registration for a period not exceeding one year and it has appeared that some of the worst offenders should be further restricted from practising. The bill also provides in another section that no person who becomes registered after January 1, 1925, shall hold himself out to do major surgery or as a specialist in any of the branches of medicine or surgery until he has furnished the board with satisfactory proof that he has served not less than two years in a reputable hospital devoting his time to the work in which he specializes or having associated himself continuously for at least two years with a reputable physician registered in the state in which he practises for the purpose of preparation for his specialty. Registration is a prerequisite for this distinction. Registered physicians who are engaged in practice as specialists shall, upon satisfactory proof that they possess the qualifications specified and upon payment of a fee of two dollars, be registered as specialists.

Apparently this bill only requires that practitionrs desiring to represent themselves as specialists are obliged to be registered as such, in that it provides that no person shall *practise as specialist* without first securing registration. Unless the courts give further interpretation it may be that a physician now registered may do anything he pleases if he does not hold himself out as a specialist. Whether in the case of the new registrants after January 1, 1925, who may do major surgery without advertising or claiming to be able to perform major operation the law will have to be interpreted by the courts as to what constitutes holding oneself out is a question. The bill aims to correct certain evils but we cannot know its powers if enacted into law until a test case shall have been brought.

A further provision of the bill is designed to correct a situation which has arisen when an unregistered doctor has tried to practise in this state under cover of being a consultant. This applies not to a single or repeated consultation on a given case but to continuously practising under this cover. The whole bill has merit but we are curious as to its standing when it comes to a test.

House 68 on recommendation of the department of mental diseases would require a fiduciary in administering property under a will by the terms of which property is to be turned over to trustees shall file an affidavit as to the mental condition of beneficiaries, resident in the Commonwealth, and if any such beneficiary has been adjudged insane shall send a suitable notice to the department of mental diseases.

House 108 relates to compensation for occupational diseases.

House 221 attempted to provide for restricting the sale of patent medicine containing more than six per cent. of alcohol. The bill had more loop-holes than a ladder and was promptly given leave to withdraw.

House 260 is designed to create a division of preventive medicine under the department of public health and for a state fund for paying benefits in cases of sickness, accident or death. The Committee on Legislation appeared in opposition because the bill contemplates creating state medicine and is socialistic to an extreme degree. The Committee on Public Health recommends that this be referred to the next general session.

A NEW STATE PRISON

Mr. Lewis Parkhurst will again argue for the creation of a new State prison and sale of the present property.

If his arguments relating to cost are logical it will be good public policy to adopt his plan. The Committee on Ways and Means can pass on that.

The question of the proper treatment of prisoners from a humanitarian standpoint is the most important feature of Mr. Parkhurst's recommendations and it is sound political economy to have the recommendations studied by experts so that the State will make no mistake either of unwarranted action or procrastination. We hope that the matter will be given serious consideration.

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RECENT DEATHS

BOOTH.—Dr. Edward Chauncey Booth, a retired Fellow of the Massachusetts Medical Society, died at Winter Park, Fla., January 18, 1925, aged 75.

He was born in Somerville, May 4, 1849, son of Chauncey Booth, Jr., a Fellow of the State Medical Society and connected with the McLean Asylum, then in Somerville. A graduate of the Somerville High School, Edward took his A. B. at Harvard in 1871, and his M. D. in 1877, then taking services in the

Massachusetts General Hospital and in the Boston Lying-In Hospital. He was assistant physician at the state asylum for the insane at Morristown, N. J., while in that state joining the New Jersey Medical Society and the New Jersey Historical Society. Returning to Somerville in 1888 he practiced in his native city until 1915 when his name was placed on the retired list. He was a member of the Somerville Historical Society, New England Historic Genealogical Society, and various social clubs.

BRIDGE.—Dr. Norman Bridge, formerly professor of medicine in Rush Medical College, Chicago, died in Los Angeles, Cal., January 10, 1925, at the age of 80.

Dr. Bridge was born in Windsor, Vt., Dec. 30, 1844, had a high school education and took his M. D. from Chicago Medical College in 1868. Ten years later Rush conferred the same degree on him. From 1898 to 1901 he was professor of medicine at Rush and since then emeritus professor. He was president of the Chicago Board of Education in 1882-1883, and held membership in many learned societies. He wrote "The Penalties of Taste and Other Essays," in 1898, and "The Marching Years," in 1920, besides many papers. He had been retired from practice and engaged in the petroleum business for several years, being vice-president of the Pan-American Petroleum and Transport Company. Dr. and Mrs. Bridge, who was Miss Mae Manford of Chicago, celebrated their golden wedding anniversary last May.

GOODRIDGE.—Dr. Frederick James Goodridge, a Fellow of the Massachusetts Medical Society, died at his home in Cambridge, after a short illness, on January 15, 1925, aged 52.

The son of Charles F. Goodridge, he was born in Cambridge, October 26, 1873. He was graduated from Harvard in 1898 and from Harvard Medical School in 1902, while in college being active in athletics, and captain of the first Harvard hockey team, and later a coach. After serving as house officer at the Massachusetts General Hospital he was in the surgical out-patient department at the Children's Hospital in Boston before settling in practice in Cambridge. He devoted himself largely to surgery and was surgeon to the Cambridge Hospital at the time of his death.

Dr. Goodridge was supervising censor and councilor of the Middlesex South District Medical Society for a series of years.

He is survived by his widow, who was Miss Susan Blake McPherson, of Presque Isle, Me., and by a son and a daughter.

KEEGAN.—Dr. Charles Andrew Keegan, a Fellow of the Massachusetts Medical Society, died at his home in Arlington, January 15, 1925, after a prolonged illness, at the age of 59.

He was born in Nashua, N. H., September 2, 1865, son of Patrick and Ann (Feeney) Keegan, and studied in the medical department of the University of Vermont. He was graduated in 1889. After several years of practice in Marlboro, he took up his practice in Arlington, 27 years ago.

He had been a trustee of the Robbins library in Arlington for years, and was a past president of Division 23, A. O. H. He was a member of the American Medical Association and the Cambridge Medical Improvement Society. He was for many years medical examiner for St. Malachi Court, Catholic Order of Foresters, in Arlington. Surviving him are two brothers, Thomas F. of Cambridge, and John H. of Yonkers, N. Y., and a sister, Mrs. Rosanna Cullen of Nashua, N. H.

STEARNS.—Dr. Charles Goddard Stearns, for many years a physician of Leicester, Mass., died at St. Vincent's Hospital, Worcester, Mass., January 16, 1925, at the age of 74.

He was born April 28, 1850, in Barre, son of Timothy and Eliza (Howe) Stearns, graduated from Amherst in the class of 1874, and was a member of the Phi Beta Kappa. Later he attended the Harvard Medical School, graduating with the class of 1881, served as house officer at the Carney Hospital and went to Brookfield to practice. He remained there for four years when he was urged to move to Leicester, as there was need of him in that community. He lived in Leicester during the next 22 years when his health necessitated a change, and he moved to East Dennis, resigning from the State Medical Society in 1906. Latterly he had lived in Quincy. While in Leicester, he was a trustee of the Leicester public library, chairman of the parish committee of the Congregational church, secretary of the board of trustees of Leicester Academy, a member of the Brookfield Medical Club, of the Worcester District Medical Society, and of the Massachusetts Medical Society. He is survived by his wife, Caroline (Willard), and a brother, William H. Stearns, of Northboro.

TIRRELL.—Dr. Vinson Meader Tirrell, of South Weymouth, died at Westborough January 18, 1925, aged 65. He was a native of Warren, R. I., but moved to South Weymouth with his parents while a boy. He received his early education in Weymouth, and was graduated from the College of Physicians and Surgeons, Boston, in 1893, joining the Massachusetts Medical Society in that year. He retired two years ago on account of ill health. He is survived by a widow and two daughters.

WOOD.—Dr. Gilbert Osborne Wood, who joined the Massachusetts Medical Society in 1924, died at his home in Framingham, January 19, 1925, at the age of 47. He was a graduate of McGill University, Faculty of Medicine.

OBITUARY

ERNEST HAROLD BAYNES

Few men outside of the ranks of physicians have been so intimately associated with the profession in some of its problems. His close contact with our animal comrades and his concern for the well being of wild and domesticated creatures made him a champion of the rights of the birds and beasts.

Earlier in his career his sympathy led to doubt of the need of animal experimentation, but with a mind devoid of prejudice and prompted by a purpose to be fair and logical he devoted time to the study of the problems relating to the use of animals in the investigation of the causes and prevention of disease. His investigations led to the conclusion that justice to human beings and the so-called lower animals warranted the humane use of animals in the study of diseases, and with this conviction allied himself with investigators who are obliged to make use of living animals in the pursuit of knowledge.

Those who were privileged to hear his convincing arguments delivered before the Massachusetts Medical Society last June were thrilled by his eloquence and enthusiasm.

Even then, his physical condition indicated the approach of the disease which caused his death and the story of the threatened martyrdom by his opponents roused and thrilled his hearers.

We, of this Journal, were privileged to meet him on a few occasions when he was in Boston and we felt that he was one of the strongest allies of the medical profession in combating the fanaticism of those who would save guinea pigs and dogs at the possible expense of human lives.

Mr. Baynes was an apostle of the truth, his spirit abides with us and will encourage all who are working in behalf of humanity.

CORRESPONDENCE

AMERICAN MEDICAL ASSOCIATION

COUNCIL ON PHARMACY AND CHEMISTRY

Editor, Boston Medical and Surgical Journal:

In addition to the articles enumerated in our letter of June 28th, the following have been accepted:

Manhattan Eye Salve Company—
  Butyn Ointment—M. E. S. Co.
  Holocaine Ointment—M. E. S. Co.

Yours truly,
W. A. PUCKNER, *Secretary,*
Council on Pharmacy and Chemistry.

CONNECTICUT DEPARTMENT OF HEALTH

WEEKLY MORBIDITY REPORT FOR THE WEEK ENDING JANUARY 10, 1925

(Including all cases reported before 11 A. M., Monday. January 12, 1924)

Diphtheria

Fairfield County	
Bridgeport	8
Danbury (C)	1
Fairfield	1
Norwalk	2
Shelton	1
Stamford (C)	4
Hartford County	
Bloomfield	1
Bristol	6
Farmington	1
Hartford	7
New Britain	5
Plainville	1
Southington	1
Windsor	2
Middlesex County	
Middletown (C)	1
New Haven County	
Ansonia	3
Meriden (C)	2
New Haven	1
Waterbury	2
New London County	
New London	1
Norwich (C)	1
	—
State total	52
Last week	100

The following diphtheria bacilli carriers were reported:

Hartford	6
New Haven	3
Norwalk	1
Waterbury	2

Scarlet Fever

Fairfield County	
Bridgeport	19
Danbury (C)	3
Fairfield	2
Shelton	3
Stamford (C)	7
Westport	1
Hartford County	
Berlin	3
Bristol	1
Canton	3
East Hartford	6
Hartford	6
Manchester	5
New Britain	19
Plainville	6
Southington	2
West Hartford	3
Litchfield County	
Litchfield	7
New Milford	1
Thomaston	9
Middlesex County	
East Hampton	1
Middlefield	2
Middletown (C)	11
Old Saybrook	3
New Haven County	
Ansonia	17
Branford	1
Guilford	1
Hamden	1
Madison	2
Meriden (C)	1
Milford	1
New Haven	48
Wallingford (B)	3
Waterbury	11
West Haven	1
New London County	
Groton (B)	2
Norwich (C)	4
Norwich (T)	1
Stonington	7
Tolland County	
Rockville	1
Vernon	1
Windham County	
Putnam (C)	2
Sterling	2
	—
State total	230
Last week	199

Measles

Fairfield County	
Fairfield	1
New Canaan	1
Hartford County	
Hartford	1
Middlesex County	
Chester	9
New Haven County	
East Haven	1
Guilford	1
New Haven	22
	—
State total	36
Last week	14

Whooping Cough

Fairfield County	
Bridgeport	1
Stamford (C)	4
Stamford (T)	1
Stratford	1
Hartford County	
Bristol	24
Enfield	7
Hartford	4
West Hartford	2
Wethersfield	3
Middlesex County	
Middletown (C)	1
New Haven County	
Hamden	4
New Haven	17
North Haven	3
West Haven	2
New London County	
Jewett City	1
Montville	7
New London	6
Tolland County	
Hebron	19
Stafford	1
	—
State total	108
Last week	47

Typhoid Fever

Fairfield County	
Fairfield	1
Hartford County	
Bristol	2
Enfield	1
West Hartford	1
New Haven County	
New Haven	1
	—
State total	6
Last week	4

Other Communicable Diseases

Cerebrospinal Men.	3
Chickenpox	121
Encephalitis Epid.	1
German Measles	34
Influenza	3
Mumps	42
Pneumonia (broncho)	47
Pneumonia (lobar)	67
Poliomyelitis	1
Septic Sore Throat	4
Tetanus	1
Tuberculosis (pul.)	41
" (other forms)	5
Gonorrhoea	25
Syphilis	20

MAINE STATE DEPARTMENT OF HEALTH

INFECTIOUS DISEASES REPORTED FOR THE WEEK ENDING JANUARY 10, 1925

Chickenpox

Bath	2
Belfast	1
Brunswick	3
Dover-Foxcroft	5
Lewiston	7
Portland	17
Skowhegan	1
South Portland	2
Waterville	4
Wells	1
Winslow	3
	—
	46

Diphtheria

Mexico	1
Portland	3
Stonington	1
Westbrook	1
	—
	6

Gonorrhea

Bangor	4
Calais	1
Hallowell	7
Kennebunk	1
Monticello	1
Rumford	1
	—
	15

Influenza

Monmouth	2

Measles

Easton	7
Newfield	6
Stonington	1
	—
	14

Mumps

Albany	8
Bangor	10
Bath	2
Biddeford	1
Brewer	1
Brunswick	1
Falmouth	1
Lewiston	1
Norway	1
Portland	45
Presque Isle	1
Princeton	30
Sherman	2
Topsham	6
Waterville	10
Winter Harbor	1
	—
	121

Pneumonia

Bowdoinham	1
Biddeford	3
Brunswick	1
Easton	1
Lewiston	1
Mechanic Falls	1

Portland	1
Presque Isle	1
Sanford	2
Stark	1
Skowhegan	1
	14

Poliomyelitis

Bath	1
Greene	1

Scarlet Fever

Bangor	1
Brewer	3
Biddeford	1
Damariscotta	1
Eastport	1
Enfield	1
Portland	7
Presque Isle	2
Lewiston	1
Topsham	2
Westbrook	1
	21

Septic Sore Throat

Monmouth	1

Smallpox

Lewiston	1

Syphilis

Portland	1

Tuberculosis

Auburn	1
Bangor	1
Biddeford	2
Cherryfield	1
Portland	3
Stow	1
	9

Typhoid Fever

Bangor	1
Brownfield	2
Portland	2
Skowhegan	1
	6

Vincent's Angina

Portland	2
South Portland	1

Whooping Cough

Auburn	3
Brunswick	1
Lewiston	1
Waterville	3
	8

RHODE ISLAND STATE BOARD OF HEALTH

CONTAGIOUS DISEASES REPORTED FOR THE WEEK ENDING DECEMBER 27, 1924

Diphtheria

Providence	2
Pawtucket	2
Middletown	2
	6

Typhoid Fever

Providence	2
New Shoreham	1

Chickenpox

Providence	1
Lincoln	1

Septic Sore Throat

Providence	1
Middletown	1

Scarlet Fever

Providence	11
Pawtucket	2
Woonsocket	1
East Providence	3
Warren	1
	18

Whooping Cough

Cranston	1
Westerly	1

Ophthalmia Neonatorum

Cranston	1

Measles

Barrington	3

WEEK ENDING JANUARY 3, 1925

Diphtheria

Providence	13
Pawtucket	2
Bristol	1
Coventry	1
Cumberland	1
East Providence	1
	19

Typhoid Fever

Providence	2

Measles

Providence	2
Warren	1

Influenza

Providence	3
Coventry	3

Scarlet Fever

Pawtucket	3
Coventry	5
Cumberland	1
East Greenwich	1
East Providence	1
Providence	4
Warren	1
Westerly	2
	18

Mumps

Providence	1

Whooping Cough

Cranston	1

Pneumonia

Cranston	1

CONNECTICUT DEPARTMENT OF HEALTH

WEEKLY MORBIDITY REPORT FOR THE WEEK ENDING JANUARY 17, 1925

(Including all cases reported before 11 A. M., Monday, January 19, 1925)

Diphtheria

Fairfield County	
Bridgeport	8
Fairfield	1
Norwalk	2
Westport	1
Hartford County	
Bristol	14
East Hartford	1
Enfield	1
Farmington	1
Hartford	5
Manchester	1
New Britain	8
Newington	1
Southington	1
West Hartford	2
Wethersfield	1
Litchfield County	
North Canaan	1
Thomaston	1
New Haven County	
Ansonia	6
Beacon Falls	1
East Haven	1
Meriden (C)	2
New Haven	2
Seymour	1
Waterbury	3
New London County	
New London	1
Norwich (C)	1
Tolland County	
Mansfield	2
State total	70
Last week	52

The following diphtheria bacilli carriers were reported:

Bristol	1
East Haven	2
Hartford	11
New Haven	2
New London	4
Norwalk	2
West Hartford	1

Typhoid Fever

Fairfield County	
Bridgeport	1
Litchfield County	
Watertown	1
Middlesex County	
Middletown (C)	1
State total	3
Last week	6

Scarlet Fever

Fairfield County	
Bridgeport	16
Fairfield	1
Greenwich	2
Shelton	2
Stamford (C)	9
Stratford	1
Westport	2
Wilton	1
Hartford County	
Canton	2
Granby	1
Hartford	12
Manchester	6
New Britain	15
Newington	2
Plainville	1
Rocky Hill	2
Southington	1
West Hartford	2
Windsor	3
Litchfield County	
New Hartford	1
Thomaston	3
Middlesex County	
Essex	1
Haddam	1
Middletown (C)	2
Portland	1
New Haven County	
Ansonia	21
East Haven	3
Guilford	1
Hamden	2
Madison	2
Meriden (C)	2
Milford	1
New Haven	27
Seymour	1
Wallingford (B)	4
Waterbury	6
West Haven	1
New London County	
Groton (B)	3
Norwich (C)	1
Stonington	7
Tolland County	
Mansfield	1
Rockville	3
Windham County	
Putnam (C)	2
Sterling	1
State total	179
Last week	230

Measles

Hartford County	
Bristol	1
New Britain	1
Middlesex County	
Chester	25
New Haven County	
Branford	1
East Haven	1
Meriden (C)	1
New Haven	13
North Haven	1
State total	44
Last week	36

Whooping Cough

Fairfield County	
Fairfield	3
Greenwich	1
Stamford (C)	2
Hartford County	
Bristol	3
Enfield	6
Hartford	8
Newington	1
Litchfield County	
Salisbury	1
Warren	2
Middlesex County	
Chester	4
New Haven County	
Hamden	4

Meriden (C)	3
New Haven	10
Waterbury	1
New London County	
Groton (B)	1
Tolland County	
Hebron	11
	—
State total	61
Last week	108

Other Communicable Diseases

Cerebrospinal Men.	1
Chickenpox	132
Conjunctivitis Inf.	1
Dysentery (amoebic)	1
Encephalitis Epid.	2
German Measles	32
Influenza	5
Jaundice	1
Mumps	63
Pneumonia (broncho)	58
Pneumonia (lobar)	49
Poliomyelitis	1
Septic Sore Throat	6
Trachoma	1
Trichinosis	3
Tuberculosis (pul.)	29
" (other forms)	5
Gonorrhoea	16
Syphilis	39

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

Diseases Reported for the Week Ending January 17, 1925

Diseases	*No. of Cases*
Anterior poliomyelitis	2
Anthrax	3
Chickenpox	334
Diphtheria	152
Dog-bite requiring anti-rabic treatment	3
Encephalitis lethargica	4
Epidemic cerebrospinal meningitis	3
German measles	106
Gonorrhea	135
Influenza	13
Measles	248
Mumps	106
Ophthalmia neonatorum	22
Pneumonia, lobar	1[illegible]
Scarlet fever	389
Septic sore throat	3
Syphilis	46
Suppurative conjunctivitis	13
Tuberculosis, pulmonary	120
Tuberculosis, other forms	29
Typhoid fever	14
Whooping cough	102
Hilum tuberculosis	1

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

Resume of Communicable Diseases December, 1924

GENERAL PREVALENCE

The following diseases, which showed an increase during October and November, are still on the increase this month: Chickenpox, diphtheria, measles. lobar pneumonia, scarlet fever and whooping cough.

	Dec., 1924	Nov., 1924	Dec., 1923
Chickenpox	1,242	906	1,583
Diphtheria	677	620	1,102
Measles	674	379	1,320
Pneumonia, lobar	494	404	377
Scarlet fever	1,411	937	1,550
Whooping cough	367	305	411

RARE DISEASES

Anterior poliomyelitis was reported from Attleboro. 1; Barre, 2; Boston, 3; Fall River, 2; Lexington, 1; Lowell, 1; Quincy, 1; Worcester, 2; total, 13.

Anthrax was reported from Haverhill, 1; Lynn, 2; total, 3.

Dog-bite requiring anti-rabic treatment was reported from Boston, 3; Dedham, 1; Lowell, 5; Newton, 1; total, 10.

Encephalitis lethargica was reported from Arlington, 1; Boston, 7; Cambridge, 2; Chelsea, 2; Chicopee, 1; Everett, 1; Fall River, 1; Haverhill, 1; Lawrence, 1; Lowell, 1; Lynn, 1; Newton, 1; Springfield, 1; Worcester, 3; total, 24.

Epidemic cerebrospinal meningitis was reported from Attleboro, 1; Lowell, 1; Rehoboth, 1; total, 3.

Hookworm was reported from Boston, 2.

Malaria was reported from Boston, 1; Somerville, 1; total, 2.

Septic sore throat was reported from Boston, 13; Cambridge, 2; Clinton, 1; Lowell, 1; Wellesley, 1; total, 18.

Tetanus was reported from Beverly, 1; Lynn, 1; total, 2.

Trachoma was reported from Boston, 1.

Trichinosis was reported from Boston, 2.

DISTRIBUTION

All Communicable Diseases

	Dec., 1924	Dec., 1923
Total cases (all causes)	7,004	8,473
Case rate per 100,000 population	175.0	213.4

Certain Prevalent Diseases

Diphtheria	Dec., 1924	Dec., 1923
Total cases	677	1,102
Case rate per 100,000 population	16.9	27.8

Cities and towns noticeably exceeding their median endemic indexes*:

Haverhill	(17)	42	Belchertown	(0)	16

Measles	Dec., 1924	Dec., 1923
Total cases	674	1,320
Case rate per 100,000 population	16.8	33.3

Cities and towns noticeably exceeding their median endemic indexes*:

New Bedford	(4)	29	Chelsea	(6)	102
Dedham	(2)	7	Everett	(4)	14
Framingham	(3)	20	Waltham	(6)	20
Natick	(0)	14	Springfield	(16)	41

Scarlet Fever	Dec., 1924	Dec., 1923
Total cases	1,411	1,550
Case rate per 100,000 population	35.2	39.0

Cities and towns noticeably exceeding their median endemic indexes*:

Boston	(170)	393	Holden	(0)	6
Hopkinton	(0)	7	Northbridge	(0)	9
Norwood	(2)	34	Chicopee	(3)	24
Amesbury	(1)	7	Springfield	(33)	232
Lawrence	(7)	56	W. Springfield	(3)	15
Methuen	(4)	27	Dalton	(1)	16
Waltham	(12)	44			

Typhoid Fever	Dec., 1924	Dec., 1923
Total cases	73	32
Case rate per 100,000 population	1.8	.8

Cities and towns noticeably exceeding their median endemic indexes*:

Pittsfield	(0)	22

Whooping Cough	Dec., 1924	Dec., 1923
Total cases	367	411
Case rate per 100,000 population	9.2	10.4

Cities and towns noticeably exceeding their median endemic indexes*:

Fall River	(11)	28	Milford	(0)	11
Canton	(0)	8	Templeton	(0)	28
Chelsea	(2)	14			

Tuberculosis, Pulmonary	Dec., 1924	Dec., 1923
Total cases	402	391
Case rate per 100,000 population	10.0	9.8

Tuberculosis, Other Forms	Dec., 1924	Dec., 1923
Total cases	73	57
Case rate per 100,000 population	1.8	1.4

*The Median Endemix Index is obtained by arranging in arithmetical sequence the monthly totals of reported cases for the past five years and selecting the middle figure. The numbers in parentheses after the name of each city and town indicate the Median Endemic Index for that city or town; the numbers without parentheses indicate the cases reported during the current month.

NEWS ITEM

APPOINTMENT

Dr. William J. Macdonald has been appointed as Assistant in the Syphilis Department at the Massachusetts General Hospital.

REPORTS AND NOTICES OF MEETINGS

The Massachusetts Medical Society

STATED MEETING OF THE COUNCIL

A stated meeting of the Council will be held in John Ware Hall, Boston Medical Library, Wednesday, February 4, 1925, at 12 o'clock, noon.

Business:
- Reports of the Standing Committees.
- Petitions for restoration to the privileges of fellowship.
- Appointment of delegate to the Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals, at Chicago, March 9-12, 1925.
- Appointment of delegates to the annual meetings of the state medical societies of New England.
- Reports of the Treasurer and Auditing Committees.
- Incidental Business.

Walter L. Burrage, *Secretary*.

January 28, 1925.

RECOMMENDATION FOR A CENTRAL OFFICE OF THE MASSACHUSETTS MEDICAL SOCIETY

Following out the Editorial suggestion of the Journal the Committee on Headquarters for the Society appointed at the last Council Meeting offers this statement concerning their report to be presented at the coming meeting of the Council.

They will recommend that room 408 in the Farragut Building connecting with the present Editorial office of the Journal be engaged by the Society as a headquarters for the officers and committees. This room with the individual expenses for light, telephone, supplies, and postage will cost about six hundred dollars a year.

The permanent equipment will cost about three hundred and fifty dollars, an outlay for the first year only.

It seems fair to pay the Journal about five hundred dollars a year for that portion of the time of a secretary which will be devoted to the work of the Society and its officers and committees. It is hoped that as far as possible the clerical work of the Committees will be in the hands of one Secretary who will thus become familiar with the details of the various activities of the Society. Of course if this is done the appropriations for clerical help for the various committees will be less.

CORRECTION

In the notice of the physiological conference which appeared on page 196, the subject of the paper to have been read by Dr. Ferry should, of course, have been given as "Notes on the Change of Hemoglobin to Methemoglobin."

MEETINGS OF THE AMERICAN LARYNGOLOGICAL, RHINOLOGICAL AND OTOLOGICAL, THE AMERICAN PROCTOLOGIC SOCIETIES AND THE ASSOCIATION FOR THE STUDY OF INTERNAL SECRETIONS

The American Laryngological, Rhinological and Otological Society has completed arrangements for its 1925 convention which it will hold at The Ambassador, Atlantic City, May 22-25. The American Proctologic Society and the Association for the Study of Internal Secretions will also meet at that hotel directly following the L., R. and O. meeting.

From advance reservations already received, officers of the three societies believe that the attendance will be the largest in the history of the organization.

NORFOLK DISTRICT MEDICAL SOCIETY

There will be a slight change in the program of the Norfolk District Medical Society of February 24, 1925, as follows:

Feb. 24, 1925, Roxbury Masonic Temple. "Periodic Physical Examinations." Drs. Roger I. Lee and Francis H. McCrudden.

Frank S. Cruickshank, *Secretary*,
The Norfolk District.

THE NEW ENGLAND DERMATOLOGICAL SOCIETY

The regular quarterly meeting of The New England Dermatological Society will be held Wednesday, February 11th, in the Skin Out-Patient Department, M. G. H. at 3.00 P. M.

C. M. Casselberry, *Secretary*.

A Physiological Conference will be held in the Bowditch Library, Building C, of the Harvard Medical School, Wednesday, February 4th, at 4 P. M. Mr. Philip Brinker will speak on "Systemic Reactions to Variations in Temperature and Humidity."

ESSEX SOUTH DISTRICT MEDICAL MEETING

The regular meeting of the Essex South District Medical Society was held January 14 at The Boston City Club.

Following the dinner, the guest of the evening, Dr. C. E. A. Winslow, Professor of Public Health, of Yale University, spoke upon The Relation of Tuberculosis to Industry. He stated that the chief factors to be considered are dust, posture and ventilation. Wherever silica dust is encountered the incidence of tuberculosis is high, as in finishers of granite and in the various industries in which grinding and polishing are done upon sand wheels. In contrast he spoke of the low percentage of tuberculosis among coal-miners, who, however, show a high rate in respect to bronchitis and pneumonia.

He referred to the success of Calmette's tuberculosis vaccine in preventing the disease among cattle, and spoke hopefully of the new tuberculosis vaccine being produced by the four eminent men from Copenhagen now working at New Haven. The address appears on page 215 of this issue.

The occasion was graced by the presence of the President of the Parent Society, Dr. E. H. Bigelow.

Adjourned 9 p. m.

Wm. T. Hopkins, *Reporter.*

HARVARD MEDICAL SOCIETY

A meeting of this Society was held in the Peter Bent Brigham Hospital Amphitheatre (Van Dyke St. entrance), Tuesday evening, Jan. 27, 1925, at 8.15 o'clock. The program was as follows:

1. Demonstration of cases.
2. Acute Serous Encephalitis, A Newly Recognized Disease of Childhood, Dr. C. L. Brown.
3. Some Remarks on Pernicious Anemia, Dr. Henry A. Christian.

MEETING OF THE BOSTON ASSOCIATION FOR PREVENTION AND RELIEF OF HEART DISEASE

The Boston Association for the Prevention and Relief of Heart Disease met at the Peter Bent Brigham Hospital on Thursday, January 15th. Dr. Henry Jackson addressed the meeting on the subject, "Not All Heart Symptoms Are Serious." He considered this subject under the following headings:

(1) Conditions of the heart that are not pathological.

(2) Pathological conditions of the heart that are not of material importance to the individual.

(3) Definite cardiac lesions which do not mitigate against active life.

(4) Certain other conditions which simulate heart disease but which are due to other diseases.

Under the first heading Dr. Jackson included sinus arythmia, fainting, the slow heart and systolic murmur. Sinus arythmia is very common in children and young adults. It has been erroneously diagnosed as organic heart disease. Some children have been restricted from games and play on account of this symptom. In most of these cases there is no indication of any heart disease. One authority makes the statement that sinus arythmia following an acute disease is evidence that the child has come through it without permanent harm. Fainting is sometimes attributed to heart disease. Dr. Jackson has not known of any case of heart disease subject to fainting. In his experience it is not a sign nor symptom of heart disease. Rapid uncomfortable action of the heart from mental disturbance, fright, or slight overexertion is usually of no serious significance.

The slow heart is frequently a source of worry to the laity and occasionally to the physician. There is a feeling among the laity that this slow action indicates weakness. Dr. Jackson referred to a case of a football player he had observed whose heart was never over fifty. There are perhaps pathologically slow hearts in two types of disease. One is jaundice in which the slow action is due to the toxic effect of the bile absorbed; the other is in recovery after pneumonia. This may be caused by increased vagus action, but whatever the cause it is not of serious import.

The death blow to the importance of the systolic murmur came with the order to physicians in examining recruits during the war that a murmur at the apex or base not transmitted was not to be considered a disqualifying sign.

Dr. Roger Lee, of the Hygiene Department, in examining students has found that over 70% have a systolic murmur. A great majority of these are of no consequence. Some physicians still consider a definite murmur of importance and warn the patient against over-exertion.

Under pathological conditions of the heart that are not of material importance to the individual Dr. Jackson considered the premature contracture, occasional periods of tachycardia and Soldier's Heart or functional disturbance. Occasional occurrence of premature contracture or an extra systole may be a source of perturbation to the individual. It may be an important sign but it is only so when accompanied by allied signs and symptoms. If these intercalated beats were numerous it might weaken the heart. In general it may be said that if eight beats out of ten are good they are sufficient to carry on the work of the heart without injury.

Occasional periods of tachycardia are no reason for giving up work. In the cases cited the attacks occurred only at long intervals. Frequent attacks wear out the heart from overwork and are a real danger. Prolonged periods of tachycardia are prone to lead to dilated heart.

Soldier's Heart or functional disturbance causes more discomfort to the individual than does the average case of organic heart disease. If often gives rise to more apprehension than the more serious conditions. In this sense the condition is of material import to the individual. The true basis of decision as to its seriousness is whether or not there is real disability of the heart to carry on its work such as enlargement, oedema, etc. Some cases in which there is severe fatigue are spoken of as psychoasthenia or neuro-circulatory asthenia. Cases of too severe a character have been put under this category. Those of cyanosis and enlargement should not be classed here. If the patient can be brought to overcome the condition when it is evidently of nervous origin it need not cause death or permanently disable him.

Under cardiac lesions which do not mitigate against active life Dr. Jackson discussed valvular disease. This disease becomes of importance only in so far as the myocardium is involved. As long as the myocardium is able to stand up against the extra work due to the valvular lesion the patient is not in any serious condition. Persons with leaking valves may lead normal lives provided they avoid strenuous exercise and high altitudes. It has been said that the fate of a man with heart disease depends upon the integrity of his myocardium.

Among other conditions which simulate heart disease but are due to other causes are primary anemia and polycythemia. A good many symptoms from the former are suggestive of serious heart trouble. Among these are breathlessness, marked pulsations of the vessels of the neck and oedema. This is the most important disease mistaken for heart trouble. In recent years blood examinations prevent the mistaking of polycythemia for heart disease. A deeply cyanotic appearance of the patient has caused this mistake in the past.

In Graves' Disease the heart may be a secondarily important factor although the disease may be entirely outside of the heart, that is in the thyroid gland.

Following Dr. Jackson's paper Dr. Levine, Dr. Robey and others present took part in the discussion.

The next meeting of the association will be held on the third Thursday in March. Dr. Paul Emerson will talk on congenital hearts and Dr. Bert Hamilton on thyroid hearts.

In the future the association is to be known as "The New England Heart Association."

A MEETING OF THE N. Y. ACADEMY OF MEDICINE

MEMBERS of the staff of the Peter Bent Brigham Hospital conducted the exercises before the Section of Medicine on Tuesday evening, January 20th, at 8.30 o'clock.

The program was as follows:

1. A study of the auricles in auricular fibrillation. Channing Frothingham
2. Is quinidin of value in the treatment of auricular fibrillation? S. A. Levine
3. Observations on the effect of iodin in hyperthyroidism. Cyrus C. Sturgis
4. How much do we know about the relationship between uric acid and gout? Hilding Berglund
5. What part does anemia play in the symptomatology of pernicious anemia? Henry A. Christian

WORCESTER NORTH DISTRICT MEDICAL SOCIETY

THE regular quarterly meeting was held at the Hotel Raymond, Fitchburg, Tuesday, Jan. 27, 1925, at 4:30 P. M.

Speaker:—Donald Munro, M.D., of Boston.
Subject—"Head Injuries."

WACHUSETT MEDICAL IMPROVEMENT SOCIETY

The regular meeting of the Wachusett Medical Improvement Society was held at The Sally Louise Tea Room, Worcester, January 7th. The paper of the evening was by Dr. Frank H. Lahey of Boston, entitled: "Management of Thyroid Disease."

In Goiter Surgery, Dr. Lahey brought out the point of team work, same operators all the way through. He said over 67% of operative goiters were of the toxic class. The operation should be done in steps, no rule applies to all cases. 38% of his operations were done in one stage; in one case, the seven stage operation was used. The paper was fully illustrated by lantern slides.

The next meeting of the Society will be at Holden Hospital, Holden, Mass., on February 4th. Dr. Joseph Mueller of the State Sanatorium, Rutland, will favor the Society with a paper entitled: "Easy Methods in Diagnosis and Treatment of the Diseases of the Skin as Taught by the Hungarian School of Dermatology." O. S. PHELPS, *Secretary.*

ANNUAL MEETING OF THE NEW ENGLAND WOMEN'S MEDICAL SOCIETY

THE New England Women's Medical Society held its 47th annual meeting on January 15th and elected the following officers for two years: President, Dr. Alice H. Bigelow; Vice-President, Dr. Letitia D. Adams; Secretary, Dr. Anna Quincy Churchill; Treasurer, Dr. Hea Galliani.

The committee on the Sarah A. Bond Memorial Scholarship announced that it had been awarded for the current year to Miss Louise Eisenhardt of the class of 1925 of the Tufts Medical School. For the past three years it has been held by students in the medical department of the University of Michigan.

Dr. Bond was a physician of great skill and of tireless devotion to her patients; a president of this society just prior to her death in 1919. Out of a memorial meeting held by the society grew the impulse to establish a fund whose interest should be applied to the medical education of ambitious and industrious women. It has been contributed chiefly by Dr. Bond's patients in grateful memory, and by her colleagues, who wish to hold her life as a model before women entering her profession. The fund is not yet large enough to provide entire tuition every year. Additions are always welcome, and the president of the society is the chairman of the committee. The committee welcomes not only contributions but suggestions as to candidates.

LAWRENCE GENERAL HOSPITAL

Clinical Staff Meeting Lawrence General Hospital was held on Tuesday, January 13, 1925, 8.30 P. M. Chairman, John Parr, M. D., of Methuen.

HAMPSHIRE DISTRICT MEDICAL SOCIETY

A REGULAR meeting of the Society was held at Forbes Library, January 14, at 11.30 A. M., Dr. George W. Rawson presiding. In addition to the twelve members present there were nurses representing the various State, County and local organizations, especially interested in infant and maternal welfare.

Owing to professional engagements Dr. DeNormandie was unable to make the trip to Northampton; but he kindly arranged to have Dr. DeLos J. Bristol, his associate, read the paper he had prepared on Maternal Welfare. Both the paper and the points brought out by Dr. Bristol, in the discussion that followed, were of absorbing interest and threw much light on this important subject.

Some of the outstanding features in the address were as follows:

That 50% of maternal deaths are preventable.

That 40% to 50% of maternal deaths are due to eclampsia and sepsis. Eclampsia is a preventable disease.

That the death rate for Caesarean section is 9%; which classes it among the dangerous surgical procedures.

That recurring cases of sepsis in a physician's practice should be regarded, not as an accident, but as a crime.

He spoke finally of the advantages of a much closer coöperation between patient and physician, during the entire period of gestation.

HAMPDEN DISTRICT MEDICAL SOCIETY

A MEETING of the Hampden District Medical Society was held at the Springfield Academy of Medicine, Tuesday, January 20, 1925, at 4.15 P. M. The program: Auricular Fibrillation, Dr. E. A. Bates; Surgery of Gastric Ulcer, Dr. Dudley Carleton.

BEVERLY HOSPITAL, BEVERLY, MASS.

A DEMONSTRATION clinical meeting was held at the Beverly Hospital, Tuesday, January 20, at 4.00 P. M. Interesting cases were shown and discussion followed.

LAWRENCE GENERAL HOSPITAL

THE regular quarterly meeting of the Staff of the Lawrence General Hospital was held at the Nurses' Home, Monday, January 12, 1925, at 11 A. M.

F. D. McAllister, M.D., *Secretary.*

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SOCIETY MEETINGS

Essex North District Medical Society

May 6, 1925. Annual meeting at Lawrence.

Franklin District Medical Society

The meetings of the Franklin District Medical Society will be held on the second Tuesday of March and May.

Hampden District Medical Society

Meeting to be held on the third Tuesday in April.

Hampshire District Medical Society

The meetings will be held the second Wednesday of March and May.

Middlesex East District Medical Society

Wednesday, March 18. Harvard Club. Dr. John H. Cunningham, "Urinary Retention: Its Significance and Treatment."

Wednesday, April 15. Harvard Club.

Wednesday, May 13. Colonial Inn, North Reading.

Middlesex North District Medical Society

April 29, 1925.

Middlesex South District Medical Society

Winter Schedule—The plans for winter meetings of the Society include the stated meeting in April, two hospital meetings, and five meetings to be held in conjunction with the Suffolk District Medical Society and the Boston Medical Library (two surgical, two medical, and one general).

Norfolk District Medical Society

February 24, 1925. Masonic Temple. Subject: "The Need of Periodical Physical Examinations and How to Make Them." Speaker: Dr. Francis H. McCrudden. A second speaker will be selected to present another subject at this meeting.

March 31, 1925. Tufts College Medical School. This meeting given over to Drs. Leary and Watters for the purpose of giving us a medical examiners' talk.

Norfolk South District Medical Society

Meetings will be held the first Thursday of each month to May, inclusive, at 12 noon, at the Norfolk County Hospital, South Braintree.

Suffolk District Medical Society

February 25. Surgical Section, in association with the Middlesex South District Medical Society. "Pyelonephritis," Dr. Arthur H. Crosbie.

March 25. Medical Section, in association with the Middlesex South District Medical Society. "The Treatment of Pneumonia," Dr. Edwin A. Locke.

April 29. Annual meeting. "Hypertension and Longevity," Dr. Harold M. Frost.

Worcester District Medical Society

February 11, 1925. Memorial Hospital, Worcester. Papers will be read by the members of the hospital staff.

March 11, 1925. St. Vincent's Hospital, Worcester. Papers will be read by the members of the hospital staff.

April 9, 1925. Subject and speaker to be announced.

May 14, 1925. Annual meeting.